



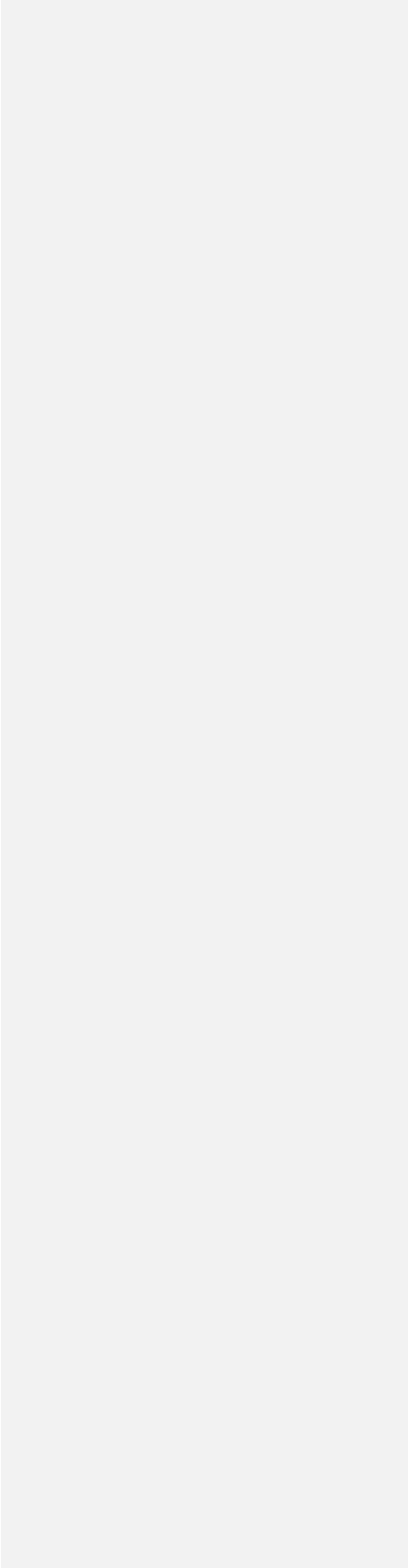
The Bahamas Telecommunications Company Limited

Reference Access and Interconnection Offer

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21 John F. Kennedy Drive, PO Box N 3048, Nassau, Bahamas
Tel: (242) 302-7000 Fax: (242) 326-7474

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Document Version History		
Date dd/mm/yyyy)	Status and Change Details	Version
17-06-2011	Publication of URCA-approved first version	1.0
14-01-2013	Rates revision- URCA Statements of results ECS-25/2012	1.1
<u>11-08-2016</u>		<u>1.2</u>

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The Bahamas Telecommunications Company Limited

Reference Access and Interconnection Offer

The Bahamas Telecommunications Company Limited of John F. Kennedy Drive, Nassau, New Providence, The Bahamas (“BTC”) offers to enter into an Access and Interconnection Agreement with qualified electronic communications operators and service providers who are licensed to provide public electronic communications services in The Bahamas to provide any or all of the services described in Annex A referred to below.

The Access and Interconnection Agreement will comprise the following documents:

- Main Terms and Conditions
- Annex A – The Services Schedules, listing and describing the Interconnection Services and containing any special terms relevant to particular services
- Annex B – Ordering Processes
- Annex C – Technical Specifications
- Annex D – Operations and Maintenance Manual
- Annex E – Billing and Payment
- Annex F – Dispute Resolution
- Annex G – Price List
- Annex H – Quality of Service Standards
- Annex I – Definitions
- Schedule 1 – Contact Details

The Reference Access and Interconnection Offer (“the RAIO”) and attached pro forma agreement takes effect from the date on which the terms of the RAIO are approved by the Utilities Regulation and Competition Authority (“URCA”) and shall continue in effect until superseded by another Reference Access and Interconnection Offer that has been approved by URCA.

Operators wishing to negotiate access and/or interconnection services under this Reference Access and Interconnection Offer must first enter into a Non-Disclosure Agreement with BTC and agree to credit verification. The method to be used by BTC for credit verification will be applied consistently to all Operators. Before BTC can start detailed negotiations over interconnection, it will request information about the Operator’s points of contact, its licence to operate, network plan, and likely capacity requirements at the points of interconnection.

BTC reserves the right to review and to amend the RAIO as required by changing circumstances, and shall review and revise the RAIO when lawfully required to do so by URCA acting in exercise of the powers conferred on it by the Communications Act 2009.

In accordance with the Guidelines issued by URCA on Access and Interconnection, BTC may introduce amendments to the terms and conditions of the RAIO by giving at least 30 Working Days advance notice to URCA and to any Operator with which it has an interconnection agreement. If URCA does not challenge the amendments within that period, BTC may proceed with the amendment and will upload details of the amendments on its website. If URCA notifies BTC in writing that it disagrees with the proposal, BTC will not proceed with the amendments unless URCA withdraws its objection or until after the issue has been consulted on and URCA has issued a regulatory or other measure.

Immediately following an amendment to the RAIO, the same change shall be made to any existing Access and Interconnection Agreement entered into between BTC and any other Licensed Operators or service providers pursuant to the RAIO unless URCA stipulates otherwise.

If URCA formally determines that BTC no longer has significant market power (“SMP”) in a market, BTC may seek appropriate amendments to the RAIO and its Access and Interconnection Agreements, including withdrawal from the RAIO of any services previously designated with SMP, subject to the approval of URCA. Should such services be withdrawn from the RAIO, any obligation to provide such services under the Access and Interconnection Agreement shall cease three months after URCA has approved the withdrawal of the services, but BTC will, during that period, offer to negotiate for the supply of the same services on commercial terms to the other Operator.

Dated 2011

.....

for **The Bahamas Telecommunications Company Limited**

Access and Interconnection Agreement

Main Terms and Conditions

The Parties

This Agreement is made at Nassau, New Providence, The Commonwealth of The Bahamas, this _____ day of _____ 2XXX (the “Effective Date”) between:

- **The Bahamas Telecommunications Company Limited** of John F. Kennedy Drive, Nassau, New Providence, The Bahamas (“BTC”),

and

- *[Operator of (address)]* (“OLO”)

which are sometimes collectively referred to as “Parties” or “Operators” and individually as “Party” or “Operator” as will be apparent from the context.

1 Introduction

1.1 Pursuant to the provisions of the Communications Act, 2009, BTC was designated as having significant market power in certain markets and by a Final Decision on SMP Obligations dated 22 April 2010 of the Utilities Regulation and Competition Authority made under the Communications Act, 2009, certain *ex ante* SMP obligations were imposed on BTC (including the obligation to publish a Reference Access and Interconnection Offer) in respect of certain wholesale services relevant to those markets.

1.2 This Agreement is entered into pursuant to the Reference Access and Interconnection Offer approved by URCA on [Date].

1.3 The services offered under this Agreement will be available to all interconnecting Operators on a non-discriminatory basis.

1.4 Except where such terms are not otherwise defined in the Communications Act, the terms used in this document as defined terms or Definitions shall have the meanings set out in Annex I.

2 Contractual documents

2.1 The following documents, along with the Schedules attached to them, form an integral part of this Agreement:

- Main Terms and Conditions
- Annex A – The Services Schedules, describing the Interconnection Services and containing any special terms relevant to particular services

- Annex B – Ordering Processes
- Annex C – Technical Specifications
- Annex D – Operations and Maintenance
- Annex E – Billing
- Annex F – Dispute Resolution
- Annex G – Price List
- Annex H – Quality of Service Standards
- Annex I – Definitions
- Schedule 1 – Contact Details

2.2 In the event of any inconsistency between parts of this Agreement, the language of the part listed higher in the following table shall prevail over that in any lower part:

- Main Body, including the definitions in Annex I and the dispute resolution procedures in Annex F
- Annex E
- Annex A
- Annex G
- Annex C
- Annex B
- Annex D
- Annex H
- Schedule 1.

3. Scope of Agreement

3.1 The Parties agree to provide Interconnection Services to each other on the terms and conditions set out in this Agreement.

3.2 The Services available to the other Operator from BTC under this Agreement are in summary:

- Call Termination to Geographic Numbers
- Call Termination to Non-Geographic Numbers
- Call Termination to Mobile Numbers
- [SMS termination on BTC's mobile network](#)
- Call Termination to Automated Ancillary Services
- Directory Enquiries
- Directory Number Inclusion Service
- Operator Assistance Calls
- Emergency Calls
- Call Termination to Freephone Numbers
- Call Transit Service (international, national and mobile)
- Joining Circuits
- Points of Interconnection

all of which are defined in more detail in the service descriptions of Annex A, together with specific terms and conditions applicable to them. The Parties may add additional services to this list by following the procedures set out in Clause 11 – New services.

3.3 The Parties may agree to a list of Services available to BTC from the other Operator and to the incorporation of such list, together with any terms and conditions and service descriptions applicable to them, under this Agreement.

4 Commencement and duration

4.1 This Agreement shall take effect on the Effective Date.

4.2 This Agreement shall continue in effect, unless otherwise agreed between the Parties, unless the entire Agreement is terminated in accordance with one of the circumstances set out in Clause 19.

4.3 Without prejudice to Clause 4.2, the minimum term for the provision of any Interconnection Service shall be one year (with the exception of Physical Co-location, when the minimum terms shall be for three years), unless otherwise agreed between the Parties.

5 Network interconnect

5.1 Each of the Parties shall connect and keep connected their respective electronic communications networks to one another by means of Joining Circuits at Points of Interconnection, in the manner described in, and subject to the terms and conditions of, this Agreement, in order to convey calls to, from or in transit over their respective networks.

6 Prices

6.1 For the provision of the Interconnection Services, the Parties agree to pay the prices set out in Annex G – Price List.

6.2 The Parties shall use the processes set out in Annex E – Billing to charge and reimburse each other for the provision of Interconnection Services.

6.3 All prices are expressed exclusive of any VAT or sales tax or other tax imposed by law.

7 Process and standards

7.1 The Parties agree to use the processes set out in Annex B – Ordering Processes for the provisioning of Interconnection Services.

7.2 The Parties agree to comply with the standards, specifications and procedures set out in Annex C – Technical Specifications and Annex D – Operations and Maintenance.

8 Quality of service

8.1 BTC shall supply the same quality of service for an Interconnection Service as it supplies to its own Customers or to its subsidiaries or affiliated companies for the same service or a similar service.

8.2 Each Party shall comply with the Quality of Service standards set out in Annex H – Quality of Service Standards.

9 Management of Access and Interconnection Agreement

9.1 The Parties accept the need for effective interconnection of their Networks in order to provide quality electronic communication services to their respective Customers, and, accordingly, undertake to:

9.1.1 act in good faith and in a professional manner in relation to each other in the provision of seamless Interconnection Services;

9.1.2 exchange information necessary for the fulfilment and continued operation of this Agreement, but without prejudice to obligations to protect Customer privacy and commercial confidentiality;

9.1.3 act at all times, as far as is reasonably possible, so as to facilitate the speedy and effective provision and operation of the Interconnection Services, to the benefit of Customers and to their mutual advantage;

9.1.4 cooperate to achieve feature transparency of supplementary services between interconnected Networks so far as is reasonably possible;

9.1.5 provide inter-operability between their Networks so that their Customers can communicate with Customers on the other Party's network; and

9.1.6 use their best efforts to resolve disputes in an efficient and professional manner.

9.2 Each Party shall nominate members of their staff to act as the first point of contact for the other Party for the management and implementation of this Agreement. These names, contact details and responsibilities shall be set out in Schedule 1, as amended from time to time.

9.3 A Licensee shall implement any additional capacity, additional circuits or other technical changes to existing interconnection services, within **three (3) months** of receiving a valid request from an interconnecting Licensee. A valid request shall be one which is compliant in all material respects with the requirements of the interconnection agreement between the parties.

9.4 URCA may, in its sole discretion, extend any of the timeframes determined herein for any period that URCA deems necessary or appropriate on application by a Licensee, which application shall be submitted in writing and submitted at least seven (7) days before the expiry of the relevant timeframe. In determining any application for an extension URCA shall also consider representations made by any other party to the proposed interconnection. Parties to an interconnection agreement may also mutually agree to a variation of the timeframes in this Final Determination and are free to follow such mutually agreed varied timeframe. In the event that the parties fail to agree on the length a variation of the timeframes herein, either party may apply to URCA or URCA may of its own volition intervene to set time frame that is binding on the parties.

10 Measurement of traffic

10.1 The responsibility for traffic measurement shall reside with the Billing Party responsible for that particular Interconnect Service.

10.2 Each Party shall ensure that it records measurements of traffic in sufficient detail to meet its obligations as outlined in the Service Schedules attached hereto as Annex A – Service Schedules.

11 New services

11.1 The Access Seeker may, at any time, request the Access Provider to provide any service or facility not currently provided for in this Agreement and which the Access Provider offers from time to time under an approved Reference Access and Interconnection Offer and the Service Request procedure set out in Annex B – Ordering Processes Clauses B.2 – B.4 shall then apply.

11.2 If the Access Seeker requests the Access Provider to provide a New Interconnection Service that is not offered under an approved Reference Access and Interconnection Offer and which pertains to any market in which BTC continues to be designated as having significant market power, the Parties shall enter into good faith negotiations for the provision of such service. The procedure set out in Annex B - Ordering Processes Clause B.8 shall apply. BTC shall follow its normal commercial practices and processes for requests for services that do not pertain to markets in which BTC is designated as having significant market power. Schedule 1 – Contact Details shall show the appropriate contact point in BTC for such services.

12 Network planning, network alterations and data management amendments

12.1 Network design and planning of the Network Interconnection between the Parties shall be as outlined in the Network Plan. The Network Plan shall cover the next three planning years.

12.2. The Network Plan shall be reviewed and updated by the Parties as necessary and at least on an annual basis and agreed by both Parties by the end of July of each year.

12.3 The Parties recognise that Network Alterations in the Network of one Party may have an impact on the operations of the other Party, and agree to co-ordinate Network Alterations in order to minimise the effect of the operations of each other's Networks generally and to ensure the smooth operation of their interconnection arrangements in accordance with Annex D – Operations and Maintenance, Clauses D.13 and D.14.

12.4 The Parties shall carry out any Data Management Amendments according to the provisions of Clause D.16.

13 Network safety and protection

13.1 Each Party is responsible for the safe operation of its Network and shall take all reasonable and necessary steps in its operation and implementation of this Agreement to ensure that its Network does not:

13.1.1 endanger the safety or health of employees, contractors, agents or customers of the other Party; or

13.1.2 damage, interfere with or cause any deterioration in the operation of the other Party's Network.

13.2 Neither Party shall knowingly connect or permit the connection to its Network of any equipment or apparatus, including any terminal equipment which is not approved by URCA or is not in compliance with any regulatory or other measures issued by URCA.

14 Numbering

14.1 Each Party shall use numbers in accordance with the National Numbering Plan of The Bahamas, as amended from time to time by URCA.

14.2 Where CLI is passed for presentation purposes, the presentation shall comply with all the requirements of the relevant data protection legislation and regulations of The Bahamas and the requirements of individual customers of the Parties.

15 Operations and maintenance

15.1 The procedures for the installation and testing of the Joining Circuits and Points of Interconnection as well as for the continued operation and maintenance thereof shall be governed by the provisions of Annex C – Technical Specifications and Annex D - Operations and Maintenance.

15.2 Each Party shall correct faults which occur in its Network which affect the provision of Interconnection Services in accordance with such Party's normal engineering practices. BTC shall correct faults affecting Interconnection Services to the same standards as those affecting other services provided by BTC. For the avoidance of doubt, neither Party warrants that its Network is, or will be, free from faults.

16 Retail customer relationships

16.1 Each Party shall instruct its staff, contractors, agents and employees to refrain from any public criticism of the other Party or from any criticism of the other Party to a Customer in relation to any matter that has arisen as a result of the operation of this Agreement. Each Party shall instruct its staff, contractors, agents and employees to concentrate their energies on resolving the issue cooperatively with the other Party.

16.2 Neither Party shall represent expressly or by omission or implication that:

16.2.1 it is approved by or an agent of or affiliated with the other Party; or

16.2.2 it has a special relationship with the other Party or is charged preferential prices by the other Party for the provision of Interconnection Services.

16.3 The Access Seeker has no right to withhold any payment due to the Access Provider on account of any non-payment of debts owed to the Access Seeker by its customers.

16.4 The Parties agree to co-operate with each other in order to detect and prevent fraudulent use, theft or misuse of each other's services or equipment. If one Party becomes aware of possible fraudulent use, theft or misuse of the other Party's services or

equipment, it shall promptly inform the other Party. A failure to comply with this Clause may constitute a Breach of this Agreement under Clause 18.

17 Dispute resolution

17.1 In the event of a dispute between the Parties over the provision of Interconnection Services or any other matter related to interconnection, the Parties agree to use the procedures set out in Annex F – Dispute Resolution (or, in the case of billing disputes, Clause E.7) in order to resolve the dispute.

17.2 A Licensee shall not interrupt, block, discontinue or otherwise impair any interconnection or access service it provides to any other Licensee unless with prior written consent of URCA and in accordance with the terms and conditions of the interconnection agreement between the parties.

18 Breach and suspension of interconnection services and Access and Interconnection Agreement

18.1 Unless otherwise specified, if a Party is in material breach of any of the terms of this Agreement, the other Party may send it a notice (the Breach Notice) specifying the nature of the breach, a reasonable timescale for its remedy, and the consequences of a failure to remedy the breach (including the suspension and termination of this Agreement).

18.2 Subject to giving URCA five Working Days' notice, and provided that URCA has not objected to the suspension within the five Working Days' notice, a Party may suspend the provision of an Interconnection Service in any of the following circumstances:

18.2.1 Where suspension is warranted by the failure of the other Party to take action to rectify a fault condition that threatens the safety of the first Party's Network.

18.2.2 A failure to correct a material breach of the terms of this Agreement, following the serving of a Breach Notice and the expiry of the term set out in the Breach Notice under the procedure set out in Clause 18.1.

18.2.3 Where the other Party has failed to pay an undisputed invoice for Interconnection Services following the elapse of 90 Calendar Days after the Due Date.

18.2.4 Where the other Party has been declared bankrupt or gone into liquidation.

18.2.5 Where the other Party ceases to be a Licensed Operator.

18.2.6 Where the first Party is formally directed to do so by URCA.

18.2.7 Where the first Party is requested by formal notice in writing to do so by the other Party.

18.3 **Effect of suspension:** If the provision of any Interconnection Service is suspended, then:

18.3.1 the Interconnection Service to which the suspension relates will no longer be provided by the first Party;

18.3.2 the provision of other Interconnection Services, not covered by the suspension, shall continue and not be affected;

18.3.3 the term of this Agreement shall not be affected by the period of suspension; and

18.3.4 unless the suspension is found to be wrongful, the first Party shall not be liable to the other Party for any losses or damage that the other Party may have suffered as a result of the suspension.

18.4 Subject to giving URCA five Working Days' notice, and provided that URCA has not objected to the suspension within the five Working Days' notice, a Party may suspend this Agreement under any of the following circumstances:

18.4.1 Where suspension is warranted by the continuing failure of the other Party to take action to rectify a fault condition that threatens the safety of the first Party's Network in accordance with Clause 8 and the fault condition relates to the provision of all Interconnection Services in this Agreement

18.4.2 A failure to correct a material breach of the terms of this Agreement, following the serving of a Breach Notice and the expiry of the term set out in the Breach Notice under the procedure set out in Clause 18.1

18.4.3 Where the other Party has ceased to operate the business of the provider of electronic communications services to Customers

18.4.4 Where the other Party has failed to provide or renew reasonable financial security for current traffic levels where required and as provided for under the terms of Clause 24

18.4.5 Where the other Party has been declared bankrupt or gone into liquidation.

18.5 A Party shall suspend this Agreement where it is formally directed to do so by URCA.

18.6 If this Agreement is suspended, then:

18.6.1 all Interconnection Services under this Agreement will no longer be provided by the first Party

18.6.2 the term of this Agreement shall not be affected by the period of suspension; and

18.6.3 unless the suspension is found to be wrongful, the first Party shall not be liable to the other Party for any losses that the other Party may have suffered as a result of the suspension.

19 Termination of interconnection services and Access and Interconnection Agreement

19.1 Subject to the approval of URCA, a Party may terminate the provision of an Interconnection Service under this Agreement in any of the following circumstances:

19.1.1 Where termination is warranted by the continuing failure of the other Party to take action to rectify a fault condition that threatens the safety of the Network of the Party undertaking the termination in accordance with Clause 13

19.1.2 A failure to correct a material breach of the terms of this Agreement, following the serving of a Breach Notice and the expiry of the term set out in the Breach Notice under the procedure set out in Clause 18.1

19.1.3 Where the other Party has ceased to trade either generally or in relation to the provision of electronic communications services to Customers or other services with which the Interconnection Service is associated

19.1.4 Where the other Party has been declared bankrupt by a Court of competent jurisdiction or entered into liquidation or an analogous process in the jurisdiction in which it was incorporated or has appointed, or suffered the appointment of, a Receiver or Administrator or official with similar powers in another jurisdiction

19.1.5 Where a Party fails to pay any amount due under the terms of this Agreement by the due date or fails to pay any amount payable as determined on the basis of the billing dispute resolution procedures under Clause E.7, and fails to remedy such default within fifteen (15) Working Days of written notice to do so

19.1.6 Where the other Party ceases to be a Licensed Operator in respect of any service to be provided to a Customer to which that Interconnection Service relates

19.1.7 Where the first Party is formally directed to do so by URCA

19.1.8 Where the first Party is requested by formal notice in writing to do so by the other Party.

19.2 **Effect of termination of Interconnection Service:** If the provision of an Interconnection Service is terminated, then:

19.2.1 the Interconnection Service to which the termination relates will no longer be provided by the first Party

19.2.2 the provision of other Interconnection Services, not covered by the termination, shall continue and not be affected.

19.2.3 the terms of this Agreement in relation to other Interconnection Services shall not be affected by the termination; and

19.2.4 unless the termination is found to be wrongful, the first Party shall not be liable to the other Party for any losses that the other Party may have suffered as a result of the termination.

19.3 Subject to the approval of URCA, a Party may terminate this Agreement in any of the following circumstances:

19.3.1 Where the other Party has been declared bankrupt by a Court of competent jurisdiction or entered into liquidation or an analogous process in the jurisdiction in which it was incorporated or has appointed, or suffered the appointment of, a Receiver or Administrator or official with similar powers in another jurisdiction

19.3.2 Where the other Party has ceased to be a Licensed Operator in respect of any service to be provided to a Customer to which the Interconnection Services being provided pursuant to this Agreement relates

19.3.3 A failure to correct a material breach of the terms of this Agreement, following the serving of a Breach Notice and the expiry of the term set out in the Breach Notice under the procedure set out in Clause 18.1.

19.4 **Effect of termination of Access and Interconnection Agreement:** Where this Agreement is terminated under Clause 19.3, then

19.4.1 all Interconnection Services under this Agreement will cease to be provided by the first Party

19.4.2 unless the termination is found to be wrongful, the first Party shall not be liable to the other Party for any losses or damage that the other Party may have suffered as a result of the suspension

19.4.3 each Party shall be responsible for and bear all direct costs incurred in the removal of its equipment and cabling at all relevant POIs, switches, shared sites and shared facilities that have been terminated

19.4.4 all outstanding invoices and debts between the Parties (including for any period during which the first Party, as a concession, continued to provide service despite termination of this Agreement) shall become due and payable.

19.5 Except in the case of a clear emergency relating to safety or potential risk of major network failure, the first Party shall obtain the approval of URCA before the implementation of the steps set out in Clause 19.

20 Force majeure

20.1 No Party to this Agreement shall be liable for any failure to fulfil its obligations hereunder where such failure is caused by circumstances outside the reasonable control of such Party, including, without limitation, insurrection or civil disorder, war or military operations, national or local emergency, acts or omissions of Government, labour disputes of any kind (whether or not involving the Party's employees or where it falls outside the Party's sphere of influence), fire, lightning, explosion, earthquake, volcano or any other such cause (each an "event of force majeure").

20.2 The Party initially affected by the event of force majeure shall promptly notify the other Party in writing of the estimated extent and duration of such inability to perform its obligations ("Force Majeure Notice").

20.3 Upon cessation of circumstances leading to the event of force majeure, the Party affected by such event of force majeure shall promptly notify the other of such cessation.

20.4 If as a result of a force majeure, the performance by the Party of its obligations under this Agreement is affected, such Party shall, subject to the provisions of Clause 20.7, perform those of its obligations not affected by a force majeure. In performing those of its obligations not affected by a force majeure, the Party initially affected by a force majeure shall use its reasonable endeavours to deploy its resources such that (when taken together with other obligations to its Customers and third parties) there is no undue discrimination against the other Party.

20.5 If the event of force majeure continues for a period of 6 months or less from the date of any notification thereof in terms of Clause 20.2, any and all obligations outstanding shall be fulfilled by the Party affected by the event of force majeure as soon as possible after cessation of the event of force majeure, save to the extent that such fulfilment is no longer practically possible or is not required by the other Party.

20.6 If the event of force majeure continues for more than 6 months from the date of the Force Majeure Notice and notice of cessation in terms of Clause 20.3 has not been given and such event of force majeure prevents the affected Party from performing its obligations in whole or in part during that period, the unaffected Party shall be entitled (but not obliged) to terminate this Agreement by giving not less than 30 days written notice to the other Party after expiry of such 6 month period to that effect; provided that such notice shall be deemed not to have been given if a notice of cessation given in terms of Clause 20.3 of the event of force majeure is received by the unaffected Party prior to the expiry of such 30 days.

20.7 If this Agreement is not terminated in terms of the provisions of Clause 20.6, any obligations outstanding shall be fulfilled by the Party affected by the event of force majeure as soon as reasonably practicable after the event of force majeure has ended, save to the extent that such fulfilment is no longer possible or is not required by the unaffected Party.

21 Review

21.1 A Party may seek to amend this Agreement by serving on the other Party a Review Notice if:

21.1.1 either Party's licence is materially modified (whether by amendment or replacement);

21.1.2 a material change occurs in the law or regulations governing electronic communications in The Bahamas;

21.1.3 a material change occurs, including enforcement action by any regulatory authority, which affects or reasonably could be expected to affect the commercial or technical basis of this Agreement;

21.1.4 there is a general review pursuant to Clause 21.3;

21.1.5 the Party seeking the amendment has a change in its operational or service needs (whether by way of a need for new services or changed circumstances).

21.2 A Review Notice shall set out in reasonable detail the issues to be discussed between the Parties.

21.3 A Party may initiate a general review of this Agreement by sending a Review Notice to the other Party on the first anniversary of the Commencement Date of this Agreement and every three months thereafter.

21.4 On service of a Review Notice, the Parties shall forthwith negotiate in good faith the matters to be resolved with a view to agreeing the relevant amendments to this Agreement.

21.5 For the avoidance of doubt, the Parties agree that notwithstanding service of a Review Notice this Agreement shall remain in full force and effect as it was before service of the Review Notice until agreement is reached or the matter is determined under Clause 21.7.

21.6 If the Parties fail to reach agreement on the subject matter of a Review Notice, either Party may initiate a dispute procedure as set out in Annex F – Disputes.

21.7 Subject to the procedures approved by URCA, if any amendment is made to the Reference Access and Interconnection Offer, the Parties shall be deemed to have agreed an equivalent amendment to the terms of this Agreement with effect from the date on which the amendment to the Reference Access and Interconnection Offer takes effect, and no further formality shall be required to give effect to such an amendment, unless otherwise specified by URCA, of this Agreement.

21.8 A Party may amend its own contact information in Schedule 1 - Contact Details at any time by informing the other Party of the amendments at least 24 hours before the amendment takes effect.

22 Provision of information

22.1 Each Party shall provide the other with the information required by the terms of this Agreement and shall do so in a timely manner. Each Party shall use reasonable endeavours to provide the other with information that may be reasonably necessary to the operation of this Agreement.

22.2 The Party disclosing information will use reasonable endeavours to ensure that the information disclosed is correct to the best of its knowledge at the time of its provision.

22.3 If a Party disclosing information provides information to the other Party, the other Party may rely on the first Party to have obtained all appropriate Third Party consents.

22.4 Subject to Clause 23, the Party receiving information shall indemnify the disclosing Party and keep it indemnified against all liabilities, claims, demands, damages, costs and expenses arising as a consequence of any failure by the Party receiving information to comply with any conditions or restrictions on use or disclosure of the information supplied in cases where those conditions or restrictions were notified to it in writing prior to the time of disclosure.

23 Confidentiality and information protection

23.1 The Parties shall not divulge to any third party the contents of this Agreement, unless required to do so by law or URCA's regulations or decisions. For the avoidance of doubt, URCA and any person specifically authorised by law is not a third party for the purposes of this Clause.

23.2 The Parties shall treat as confidential within their respective organisations the contents and terms of this Agreement and, accordingly, shall take all reasonable steps to ensure that only those staff, employees, contractors and agents that need to know the contents or terms of any part of this Agreement for the purpose of implementing this Agreement shall have access to the relevant contents and terms and to information provided by the other Party under the terms of this Agreement.

23.3 Information provided by one Party to the other shall only be used for the purpose for which it was provided. For the avoidance of doubt, such information may not be used for the commercial advantage of the recipient Party in its retail business operations or be given to any staff, employee, contractor or agent with retail sales or marketing responsibilities or to any subsidiary or associated company of the Party.

23.4 Notwithstanding Clause 23.3, Customer information provided by one Party to the other Party in connection with the Wholesale Directory Enquiries Service shall be available for the use of the other Party in answering directory enquiries from its

Customers. This information shall not be used by the other Party to gain commercial advantage in connection with its other retail services.

23.5 The Parties shall take all necessary steps to preserve the confidentiality of Customer information relating to any Customer that is passed between them and to protect the privacy of individual Customers. In particular, where instructions from Customers relevant to information confidentiality and privacy have been received by one Party they shall be communicated to, and respected by, the other Party.

23.6 The provisions of Clauses 23.1 to 23.4 inclusive do not apply to information that one Party is required to disclose in order to satisfy legal requirements or the regulations of URCA, to comply with the requirements of any recognised Stock Exchange, or to information that is already in or becomes available in the public domain through the actions of a third party.

24 Bank guarantee

24.1 BTC has the right to request a form of financial security, including a bank guarantee for an amount representing no more than three months of forward-looking revenues associated with the Interconnection Services covered by this Agreement, after taking into account any revenues payable by BTC to the other Party under this Agreement. The level of security requested shall be proportional to the risk involved. The level of security shall take account of factors such as the estimated value of services to be provided, the financial standing of the Party, and the projected liability. The financial security may be provided by a means such as bank deposit or guarantee or any other form of security used by standard commercial practice in The Bahamas.

24.2 The financial security will be subject to review by the Parties every six months starting from the Commencement Date of this Agreement, and may be amended if the projected revenues or any of the factors described in Clause 24.1 have changed or are likely to change. Failure to provide a suitable guarantee for payment of sums due for actual levels of service within 30 days (or such longer period as BTC may reasonably allow) will be sufficient reason for BTC to suspend this Agreement under Clause 18.4.

24.3 BTC may also carry out credit vetting of an existing Operator where BTC has reasonable concerns about the ability of the Operator to cover debts including without limitation where BTC has evidence of a poor payment history or the Operator's credit rating has been downgraded or threatened to be downgraded. The method to be used will be communicated to the Operator and will be standard to all Operators.

24.4 If a Party is dissatisfied with the implementation of Clauses 24.1, 24.2 and 24.3 above, it may initiate a dispute under Annex F of this Agreement.

24.5 A bank guarantee may be presented to the relevant bank for payment provided that:

24.5.1 the Access Seeker has accumulated debts overdue by 30 Calendar Days or more in relation to Interconnection Services equal to or in excess of the amount of the guarantee; and

24.5.2 the debts are not subject to dispute; and

24.5.3 the Operator concerned has been formally notified of the Access Provider's intention to present the guarantee.

24.6 BTC may seek a new bank guarantee once it has presented a bank guarantee for payment.

25 Intellectual property rights

25.1 Nothing contained in this Agreement shall be construed to confer or be deemed to confer on either Party any rights or licences in the intellectual property of the other Party.

25.2 For the purposes of this clause "Intellectual Property" means whatever trademarks, (registered or not) inventions, patents (both registered and unregistered), copyrights, registered and unregistered designs, know-how and other intellectual property vesting in a Party by the operation of law.

26 Notices

26.1 All notices provided for in this Agreement shall be in writing and shall be delivered to the relevant contact persons nominated for various purposes in Schedule 1 - Contact Details from time to time.

26.2 Written notices shall include paper-based writing and electronic means of written communication such as writing communicated by facsimile (fax) and electronic mail (e-mail).

26.3 The Party receiving a notice pursuant to this Agreement shall confirm receipt of the notice within 24 hours of such receipt. The manner of confirmation shall be the same as that used for the notice, whether paper-based or electronic.

26.4 If the Party sending a notice pursuant to this Agreement does not receive an acknowledgement within the timescale set out in Clause 26.3, it shall deliver a copy of the notice by hand to the address of the relevant contact person and obtain a receipt for the notice. This receipt shall be sufficient proof of the delivery of the notice.

27 Limitation of liability

27.1 Neither Party has an obligation of any kind to the other Party beyond an obligation to exercise the reasonable skill and care of a competent electronic communications operator in performing its obligations under this Agreement.

27.2 Subject to Clause 27.4, if a Party is in breach of any of its obligations under this Agreement to the other Party (excluding obligations arising under this Agreement to pay

moneys in the ordinary course of business), or otherwise (including liability for negligence or breach of statutory duty) such Party's liability to the other shall be limited to US\$5,000,000 for any one event or series of connected events and US\$10,000,000 for all events (connected or unconnected) in any period of 12 calendar months.

27.3 Neither Party shall be liable to the other in contract, tort (including negligence or breach of statutory duty) or otherwise for loss (whether direct or indirect) of profits, business or anticipated savings or for any indirect or other consequential loss whatsoever arising in connection with the operation of this Agreement, howsoever caused, unless otherwise explicitly provided for in this Agreement.

27.4 If a Party is not complying with the relevant laws and regulations of The Bahamas concerning the provision of access to Emergency Services, it agrees to indemnify the other Party from any and all liability, loss, or damage arising from claims, demands, costs or judgements against the other Party arising from the inability of the first Party's Customers to access Emergency Services.

27.5 Each provision of this Clause 27 is a separate limitation applying and surviving even if one or more such provisions is inapplicable or held unreasonable in any circumstances.

27.6 The provisions of this Clause 27 shall not apply to proven wilful or illegal acts undertaken by a Party, including (but not limited to) misconduct, gross negligence, criminal activity, fraud and deliberate acts of sabotage.

28 Severability

28.1 If any term, condition, agreement, requirement or provision contained in this Agreement is held by any court (including URCA, the UAT or any other relevant body) having jurisdiction to be unenforceable, illegal, void or contrary to public policy, such term, condition, agreement, requirement or provision shall be of no effect whatsoever upon the binding force or effectiveness of any of the remainder of this Agreement, it being the intention and declaration of the Parties that had they or either of them known of such unenforceability, illegality, invalidity or that the provision was contrary to public policy, they would have entered into a contract, containing all the other terms and conditions set out in this Agreement.

29 Assignment of rights and obligations

29.1 Subject to Clause 29.2, no rights, benefits or obligations under this Agreement may be assigned or transferred, in whole or in part, by a Party without the prior written consent of the other Party.

29.2 Subject to Clause 29.3, no consent is required under Clause 29.1 for an assignment of rights, benefits or obligations under this Agreement (in whole or in part) to a successor to all or substantially all of the assigning Party's Network or to an associated company provided that such successor or Associated Company shall have had a licence granted to it to operate the Network of the assigning Party.

29.3 The assigning Party shall promptly give notice to the other Party of any assignment permitted to be made without the other Party's consent. No assignment shall be valid unless the assignee or successor agrees in writing to be bound by the provisions of this Agreement.

30 Whole agreement

30.1 This Agreement constitutes the whole Agreement between the Parties as to the subject matter of this Agreement and, unless otherwise agreed in writing between the Parties, supersedes all previous agreements, understandings, representations or warranties whatsoever, whether oral or written. The Parties acknowledge and agree that in addition to this Agreement both Parties are legally bound by regulatory measures and legislative enactments governing the electronic communications sector pursuant to the statute laws of the Commonwealth of The Bahamas.

31 Variation

31.1 No addition to or variation, consensual cancellation or novation of this Agreement no waiver of any right arising from this Agreement or its breach or termination shall be of any force or effect unless reduced to writing and signed by both the Parties or their duly authorized representatives.

32 Relaxation

32.1 No latitude, extension of time or other indulgence which may be given or allowed by either Party to the other on any occasion in respect of the performance of any obligation hereunder or the enforcement of any right arising from this Agreement, and no single or partial exercise of any right by either Party, shall under any circumstances be construed to be an implied consent by such Party or operate as a waiver or a novation of, or otherwise affect any of that Party's rights in terms of, or arising under, this Agreement or estop such Party from enforcing, at any time and without notice, strict and punctual compliance with each and every provision or term of this Agreement.

33 Necessary approvals and consents

33.1 Each Party warrants to the other Party that it has the necessary rights, licences and authorities to enter into and perform its obligations in terms of this Agreement.

33.2 Each Party agrees to indemnify the other Party against any loss, claim, expense, damage or action, suffered or sustained by such other Party pursuant to a breach by such indemnifying Party of its warranty in terms of Clause 33.1, notwithstanding anything to the contrary contained in this Agreement.

34 Governing law

34.1 The law governing this Agreement shall be the laws of the Commonwealth of The Bahamas.

IN WITNESS WHEREOF, the Parties have in the presence of witnesses set their respective hands to this Agreement on the date first written above.

For and on behalf of BTC

For and on behalf of _____

Signed

Signed

Name

Name

Title

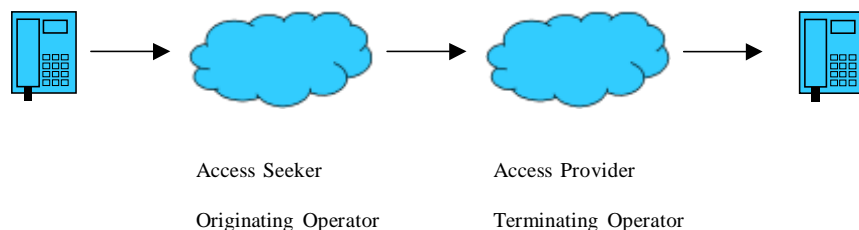
Title

Annex A – Service Schedules

A.1. Call Termination Service to Geographic Numbers

A.1.1. **Service definition:** The Call Termination Service to Geographic Numbers comprises the completion of voice Calls (including facsimile transmission and low speed data transmissions like modems and DTMF keying) that originate on the Access Seeker’s network to end-users accessed by geographic numbers that have been issued to services on the Access Provider’s network.

Diagram A.1: Call Termination Service to Geographic Numbers



A.1.2. **Call handover:** The Access Seeker will hand over calls for termination on Geographic Numbers on the fixed Network in accordance with Clauses D.2.3 and D.2.4.

A.1.3. **Supply conditions:** The Access Provider shall not be obliged to provide the Call Termination Service to Geographic Numbers until the Joining Circuit Service has been provisioned, and Points of Interconnection established, commissioned and tested.

A.1.4. **Technical requirements:** The Parties shall agree in advance all necessary technical requirements, including call set-up and clear-down sequences, for the conveyance of Terminating Calls. The technical standards and interfaces for this service shall be as set out in Schedules 1 and 2 to Annex C – Technical Specifications. Data Management Amendments for this service shall be carried out in accordance with Annex D – Operations and Maintenance, Clause D.16.

A.1.5. **Fault rectification and service restoration:** Each Party shall correct faults which occur in its Network which affect the conveyance of Terminating Calls to Geographic Numbers in accordance with such Party’s normal engineering practices. For the avoidance of doubt, neither Party warrants that its Network is, or will be, free from faults. The Parties shall resolve any faults occurring in this service in accordance with Annex D – Operations and Maintenance, Clauses D.6 – D.8.

A.1.6. **Quality of service:** The service standards set out in Annex H – Quality of Service Clauses H.1, H.2.1, H.2.2, H.4, H.5.3, H.5.4 and H.6 shall apply to this service.

A.1.7. **Calling Line Identification:** Nature of Address and Calling Line Identification (CLI) for Network and presentation purposes shall be made available for all Terminating Calls delivered to the Access Provider's Network. Both must be transmitted transparently and without modification.

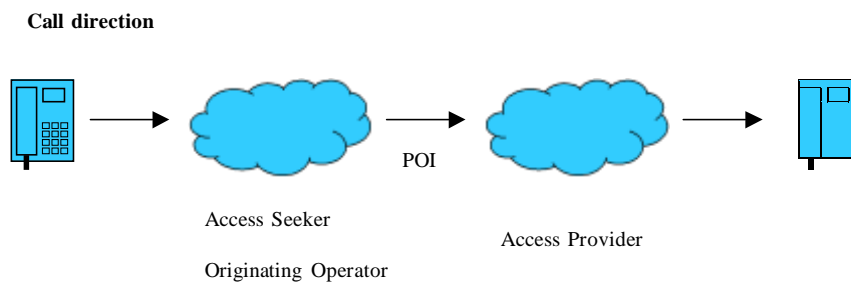
A.1.8. **Routing principles:** The conveyance of Terminating Calls shall be in accordance with the routing principles specified in Annex D – Operations and Maintenance Clause D.2.

A.1.9. **Charging:** For the conveyance of Call Termination traffic to Geographic Numbers by the Access Provider, the Access Seeker shall pay the Access Provider a charge calculated in accordance with the rates as specified in Annex G - Price List. These rates may vary by time of day, in accordance with Annex G - Price List. The Access Provider shall bill the Access Seeker for this service in accordance with Annex E – Billing Processes.

A.2. Call Termination Service to Non-geographic Numbers

A.2.1. **Service definition:** The Call Termination Service to Non-Geographic Numbers comprises the completion of voice Calls (including facsimile transmission and low speed data transmissions like modems and DTMF keying) that originate on the Access Seeker's network to end-users accessed by non-geographic numbers that have been issued to services on the Access Provider's fixed network.

Diagram A.2: Call Termination Service to Non-geographic Numbers



A.2.2. **Call handover:** The Access Seeker will hand over calls for Termination on Non-geographic Numbers on the fixed network in accordance with Clauses D.2.3 and D.2.4.

A.2.3. **Supply conditions:** The Access Provider shall not be obliged to provide the Call Termination Service to Non-geographic Numbers until the Joining Circuit Service has been provisioned, and Points of Interconnection established, commissioned and tested.

A.2.4. **Technical requirements:** The Parties shall agree in advance all necessary technical requirements, including call set-up and clear-down sequences, for the

conveyance of Terminating Calls. The technical standards and interfaces for this service shall be as set out in Schedules 1 and 2 to Annex C – Technical Specifications. Data Management Amendments for this service shall be carried out in accordance with Annex D – Operations and Maintenance, Clause D.16.

A.2.5 Fault rectification and service restoration: Each Party shall correct faults which occur in its Network which affect the conveyance of Terminating Calls to Non Geographic Numbers in accordance with such Party's normal engineering practices. For the avoidance of doubt, neither Party warrants that its Network is, or will be, free from faults. The Parties shall resolve any faults occurring in this service in accordance with Annex D – Operations and Maintenance Clauses D.6 – D.8.

A.2.6 Quality of service: The service standards set out in Annex H – Quality of Service Clauses H.1, H.2.1, H.2.2, H.4, H.5.3, H.5.4 and H.6 shall apply to this service.

A.2.7. Calling Line Identification: Nature of Address and Calling Line Identification (CLI) for Network and presentation purposes shall be made available for all Terminating Calls delivered to the Access Provider's Network. Both must be transmitted transparently and without modification.

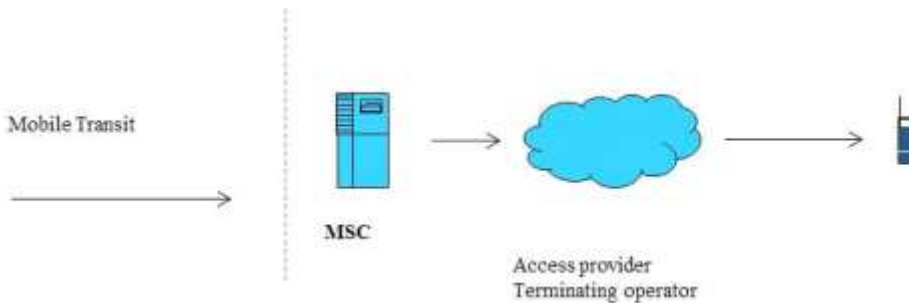
A.2.8. Routing principles: The conveyance of Terminating Calls shall be in accordance with the routing principles specified in Annex D – Operations and Maintenance Clause D.2.

A.2.9. Charging: For the conveyance of Call Termination traffic to Non-geographic Numbers by the Access Provider, the Access Seeker shall pay the Access Provider a charge calculated in accordance with the rates as specified in Annex G - Price List. The Access Provider shall bill the Access Seeker for this service in accordance with Annex E – Billing Processes.

A.3. Call termination Service to Mobile Numbers

A.3.1. Service definition: The Call Termination Service to Mobile Numbers, taken together with the Mobile Transit Service as specified in Clause A 11.1 comprises the carriage of a voice Call (including facsimile transmission and low speed data transmissions like modems and DTMF keying) originated by a Customer on the Network of the Access Seeker and handed over by the Access Seeker at a Point of Interconnection for termination on a service identified by a Mobile Number on the Network of the Access Provider. The Call Termination Service to Mobile Numbers provides the routing of the call from the MSC (Mobile Switching Centre) to the Mobile Number on the Network of the Access Provider.

Diagram A.3: Call Termination Service to Mobile Numbers



A.3.2. Call handover: The Access Seeker will hand over calls for Termination on Mobile Numbers on the mobile Network in accordance with Clauses D.2.3 and D.2.4.

A.3.3. Supply conditions: The Access Provider shall not be obliged to provide the Call Termination Service to Mobile Numbers until the Joining Circuit Service has been provisioned, and Points of Interconnection established, commissioned and tested.

A.3.4. Technical requirements: The Parties shall agree in advance all necessary technical requirements, including call set-up and clear-down sequences, for the conveyance of Terminating Calls. The technical standards and interfaces for this service shall be as set out in Schedules 1 and 2 to Annex C – Technical Specifications. Data Management Amendments for this service shall be carried out in accordance with Annex D – Operations and Maintenance, Clause D.16.

A.3.5 Fault rectification and service restoration: Each Party shall correct faults which occur in its Network which affect the conveyance of Terminating Calls to Mobile Numbers in accordance with such Party's normal engineering practices. For the avoidance of doubt, neither Party warrants that its Network is, or will be, free from faults. The Parties shall resolve any faults occurring in this service in accordance with Annex D – Operations and Maintenance Clauses D.6 – D.8.

A.3.6 Quality of service: The service standards set out in Annex H – Quality of Service Clauses H.1, H.2.1, H.2.2, H.4, H.5.3 H.5.4 and H.6 shall apply to this service.

A.3.7. Calling Line Identification: Nature of Address and Calling Line Identification (CLI) for Network and presentation purposes shall be made available for all Terminating Calls delivered to the Access Provider's Network. Both must be transmitted transparently and without modification.

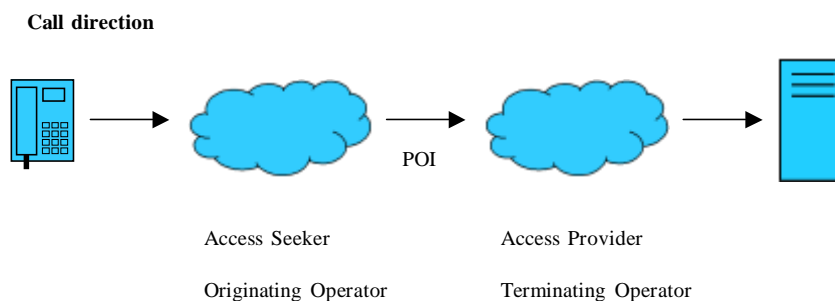
A.3.8. Routing principles: The conveyance of Terminating Calls shall be in accordance with the routing principles specified in Annex D – Operations and Maintenance Clause D.2.

A.3.9. **Charging:** For the conveyance of Call Termination traffic to Mobile Numbers by the Access Provider, the Access Seeker shall pay the Access Provider a charge calculated in accordance with the rates as specified in Annex G - Price List. The Access Provider shall bill the Access Seeker for this service in accordance with Annex E – Billing Processes.

A.4. Call Termination Service to Automated Ancillary Services

A.4.1. **Service definition:** The Call Termination Service to Automated Ancillary Services comprises the carriage of a voice Call originated by a Customer on the Network of the Access Seeker and handed over by the Access Seeker at a Point of Interconnection for termination at an automated Ancillary Service number using prefixes 915 (weather-by-phone) and 917 (time-of-day/temperature) on the Network of the Access Provider.

Diagram A.4: Call Termination Service to Automated Ancillary Services



A.4.2. **Call handover:** The Access Seeker will hand over calls for Termination on Automated Ancillary Service Numbers on the Terminating Network in accordance with Clauses D.2.3 and D.2.4.

A.4.3. **Supply conditions:** The Access Provider shall not be obliged to provide the Call Termination Service to Automated Ancillary Service Numbers until the Joining Circuit Service has been provisioned, and Points of Interconnection established, commissioned and tested.

A.4.4. **Technical requirements:** The Parties shall agree in advance all necessary technical requirements, including call set-up and clear-down sequences, for the conveyance of Terminating Calls. The technical standards and interfaces for this service shall be as set out in Schedules 1 and 2 to Annex C – Technical Specifications. Data management amendments for this service shall be carried out in accordance with Annex D – Operations and Maintenance, Clause D.16.

A.4.5 **Fault rectification and service restoration:** Each Party shall correct faults which occur in its Network which affect the conveyance of Terminating Calls to Automated

Ancillary Services in accordance with such Party's normal engineering practices. For the avoidance of doubt, neither Party warrants that its Network is, or will be, free from faults. The Parties shall resolve any faults occurring in this service in accordance with Annex D – Operations and Maintenance Clauses D.6 – D.8.

A.4.6 Quality of service: The service standards set out in Annex H – Quality of Service Clauses H.1, H.2.1, H.2.2, H.4, H.5.3, H.5.4 and H.6 shall apply to this service.

A.4.7. Calling Line Identification: Nature of Address and Calling Line Identification (CLI) for Network and presentation purposes shall be made available for all Terminating Calls delivered to the Access Provider's Network. Both must be transmitted transparently and without modification.

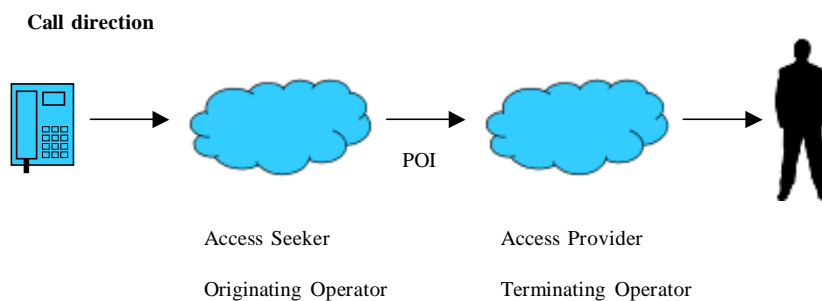
A.4.8. Routing principles: The conveyance of Terminating Calls shall be in accordance with the routing principles specified in Annex D – Operations and Maintenance Clause D.2.

A.4.9. Charging: For the conveyance of Call Termination traffic to Automated Ancillary Services by the Access Provider, the Access Seeker shall pay the Access Provider a charge calculated in accordance with the rates as specified in Annex G - Price List. The Access Provider shall bill the Access Seeker for this service in accordance with Annex E – Billing Processes.

A.5 Directory Enquiries

A.5.1. Service definition: Directory Enquiries Service comprises the carriage of a voice Call originated on the Network of the Access Seeker with the short-code 916 or any other numbers specified by URCA in the Numbering Plan for use for Directory Enquiries and handed over at a Point of Interconnection to the Access Provider to be terminated at its directory enquiries call centre. The call centre will interrogate its database of telephone numbers and provide the caller with the number, unless the subscriber to that number has requested that it shall not be provided or published. The call will be handled initially by an interactive voice recognition system, and will default to an operator if this system is unable to provide the required information. The call centre will respond to the Caller in the name of the Access Seeker rather than in the name of the Access Provider.

Diagram A.5: Call Termination Service to Directory Enquiries



A.5.2. Call handover: Directory Enquiries Calls shall be handed over in accordance with Clauses D.2.3. and D.2.4.

A.5.3. Supply conditions: The Access Provider shall not be obliged to provide the Directory Enquiries Service until the associated Joining Circuit Service has been provisioned, and Points of Interconnection established, commissioned and tested.

A.5.4. Technical requirements: The Parties shall agree in advance all necessary technical requirements, including call set-up and clear-down sequences, for the conveyance of Directory Enquiries Calls. The technical standards and interfaces for this service shall be as set out in Schedules 1 and 2 to Annex C – Technical Specifications.

A.5.5 Fault rectification and service restoration: Each Party shall correct faults which occur in its Network which affect the conveyance of Terminating Calls to Directory Enquiries in accordance with such Party's normal engineering practices. For the avoidance of doubt, neither Party warrants that its Network is, or will be, free from faults. The Parties shall resolve any faults occurring in this service in accordance with Annex D – Operations and Maintenance Clauses D.6 – D.8.

A.5.6 Quality of service: The service standards set out in Annex H – Quality of Service Clauses H.1, H.2.1, H.2.2, H.4, H.5.3, H.5.4 and H.6 shall apply to this service.

A.5.7. Calling Line Identification: Nature of Address and Calling Line Identification (CLI) for Network and presentation purposes shall be made available for all Directory Enquiries Calls delivered to the Access Provider's Network. Both must be transmitted transparently and without modification.

A.5.8. Routing principles: The conveyance of Directory Enquiries Calls shall be in accordance with the routing principles specified in Annex D – Operations and Maintenance Clause D.2.

A.5.9. Charging and billing: For the conveyance of Directory Enquiries Calls by the Access Provider, the Access Seeker shall pay the Access Provider a charge calculated in accordance with the rates as specified in Annex G - Price List. The Access Provider shall bill the Access Seeker for this service in accordance with Annex E – Billing Processes.

A.5.10. The Access Seeker shall be responsible for billing and collection of any charges to the Customer for Directory Enquiries Calls.

A.6 Directory Number Inclusion Service

A.6.1. Service Description: At the request of the Access Seeker, the Access Provider shall include in its database of subscriber information about the name, address and telephone number of the Access Seeker's subscribers and shall provide this information as part of its directory enquiry services to Customers.

A.6.2. The Access Provider shall, at the request of the Access Seeker, include the information provided under Clause A.6.1 in its published electronic and hard copy directories subject to the same rules of listing and inclusion rules as apply to other listings and inclusions, as shown in Table A.6. The Access Provider shall restrict the use of this information to the provision of directory enquiry services by the Access Provider.

Table A.6: Rules for DQ number inclusion services

1. Name of subscriber shall not exceed 37 characters (including spaces and symbols)
2. Address of subscriber shall not exceed 35 characters (including spaces and symbols)
3. Legal address must be EITHER the street address (including building number) and Post Office Box number OR the building (shopping centre) name and Post Office Box number, but NOT both
4. Directional words are not allowed in the address, such as next to, left, right, south of, north of, east of, west of, opposite, adjacent, off, behind, in front of, corner of, etc

Note: These rules may be amended from time to time pursuant to Clause 21.

A.6.3. The Access Provider shall apply the same standards of listing in the published electronic and hard copy directories to the Access Seeker's subscribers as it applies to its own subscribers.

A.6.4. **Supply conditions:** The Access Seeker shall provide the Access Provider with the necessary information, in an electronic form as agreed between the Parties.

A.6.5. The Access Seeker shall be responsible for informing promptly the Access Provider of any changes in the names, addresses or telephone numbers of its subscribers listed in the database.

A.6.6. **Charging and billing:** For the entry of subscriber information in the Directory Number Inclusion Service by the Access Provider, the Access Seeker shall pay the Access Provider a charge calculated in accordance with the rates as specified in Annex G - Price List. The Access Provider shall bill the Access Seeker for this service in accordance with Annex E – Billing Processes.

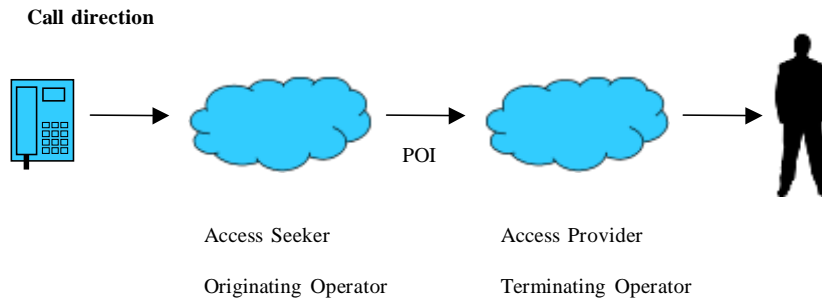
A.7 Operator Assistance Services

A.7.1. **Service definition:** Operator Assistance Services comprise the carriage of a voice Call originated on the Network of the Access Seeker using any number specified by URCA in the Numbering Plan for use for Operator Assistance Services and handed over at a Point of Interconnection to the Access Provider to be terminated at its operator assistance call centre. The call centre will provide the caller with further assistance in relation to services requested, including:

1. station to station - if the Caller is prepared to talk to anyone who answers.
2. person to person – if the Caller wishes to talk with a particular person or extension only.

The call centre will respond to the Caller in the name of the Access Seeker rather than in the name of the Access Provider.

Diagram A.7: Call Termination Service to Operator Assisted Services



A.7.2. Call handover: Operator Assistance Calls shall be handed over in accordance with Clauses D.2.3. and D.2.4.

A.7.3. Supply conditions: The Access Provider shall not be obliged to provide the Operator Assistance Service until the associated Joining Circuit Service has been provisioned, and Points of Interconnection established, commissioned and tested.

A.7.4. Technical requirements: The Parties shall agree in advance all necessary technical requirements, including call set-up and clear-down sequences, for the conveyance of Operator Assistance Calls. The technical standards and interfaces for this service shall be as set out in Schedules 1 and 2 to Annex C – Technical Specifications. Data management amendments for this service shall be carried out in accordance with Annex D – Operations and Maintenance, Clause D.16.

A.7.5. Fault rectification and service restoration: Each Party shall correct faults which occur in its Network which affect the conveyance of Terminating Calls to Operator Assistance in accordance with such Party's normal engineering practices. For the avoidance of doubt, neither Party warrants that its Network is, or will be, free from faults. The Parties shall resolve any faults occurring in this service in accordance with Annex D – Operations and Maintenance Clauses D.6 – D.8.

A.7.6. Quality of service: The service standards set out in Annex H – Quality of Service Clauses H.1, H.2.1, H.2.2, H.4, H.5.3, H.5.4 and H.6 shall apply to this service.

A.7.7. Calling Line Identification: Nature of Address and Calling Line Identification (CLI) for Network and presentation purposes shall be made available for all Operator Assistance Calls delivered to the Access Provider's Network. Both must be transmitted transparently and without modification.

A.7.8. Routing principles: The conveyance of Operator Assistance Calls shall be in accordance with the routing principles specified in Annex D – Operations and Maintenance Clause D.2

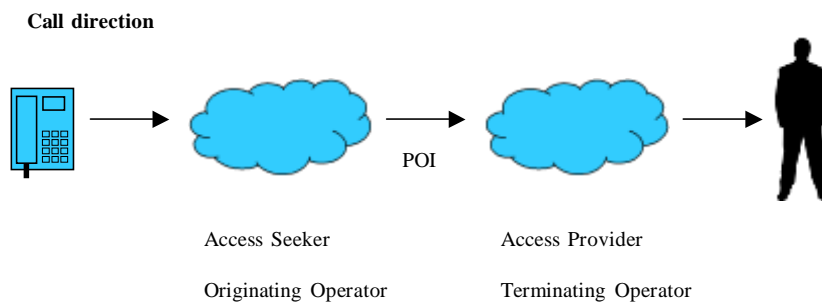
A.7.9. **Charging and billing:** For the conveyance of Operator Assistance Calls by the Access Provider, the Access Seeker shall pay the Access Provider a charge calculated in accordance with the rates as specified in Annex G - Price List. The Access Provider shall bill the Access Seeker for this service in accordance with Annex E – Billing Process.

A.7.10. The Access Seeker shall be responsible for billing and collection of any charges to the Customer for Operator Assistance Calls.

A.8 Emergency Call Services

A.8.1. **Service definition:** Emergency Call Services comprise the carriage of a voice call originated on the Network of the Access Seeker with the numbers 911 and 919 (or any other numbers assigned by URCA for Emergency Call Services), and handed over at a Point of Interconnection to the Access Provider to be terminated to the appropriate public service or emergency service's call centre. Emergency service organisations include (but are not limited to) the police, ambulance and fire services, and the maritime search and rescue services.

Diagram A.8: Call Termination Service to Emergency Services



A.8.2. **Call handover:** The Access Seeker will hand over Emergency Calls at the Point of Interconnection closest to the Network Termination Point of the calling party unless otherwise agreed between the Parties, taking into account call handling procedures and arrangements of each of the designated emergency services.

A.8.3. **Supply conditions:** The Access Provider shall not be obliged to provide the Emergency Calls service until the corresponding Joining Circuit Service has been provisioned, and Points of Interconnection established, commissioned and tested. The Parties shall agree whether dedicated capacity should be provided in their Networks for the carriage of emergency calls.

A.8.4. **Technical requirements:** The Parties shall agree in advance all necessary technical requirements, including call set-up and clear-down sequences, for the conveyance of Public Service and Emergency Calls. The technical standards and

interfaces for this service shall be as set out in Schedules 1 and 2 to Annex C – Technical Specifications. Data Management Amendments for this service shall be carried out in accordance with Annex D – Operations and Maintenance, Clause D.16.

A.8.5 Fault rectification and service restoration: Each Party shall correct faults which occur in its Network which affect the conveyance of Terminating Calls to Emergency Services in accordance with such Party's normal engineering practices. For the avoidance of doubt, neither Party warrants that its Network is, or will be, free from faults. The Parties shall resolve any faults occurring in this service in accordance with Annex D – Operations and Maintenance Clauses D.6 – D.8.

A.8.6 Quality of service: The service standards set out in Annex H – Quality of Service Clauses H.1, H.2.1, H.2.2, H.4, H.5.3, H.5.4 and H.6 shall apply to this service.

A.8.7. Calling Line Identification: Nature of Address and Calling Line Identification (CLI) for Network and presentation purposes shall be made available for all Emergency Calls delivered to the Access Provider's Network. Both must be transmitted transparently and without modification.

A.8.8. Provision of Customer information: In the event that the Emergency Services request from the Access Provider the name, address, location or telephone number of the Customer making a call to the Emergency Services for the purposes of the safety of life and property or the detection and prevention of crime (including the misuse of the Emergency Call service), the Access Seeker shall provide such information to the Emergency Service or the Access Provider without delay if such information is available.

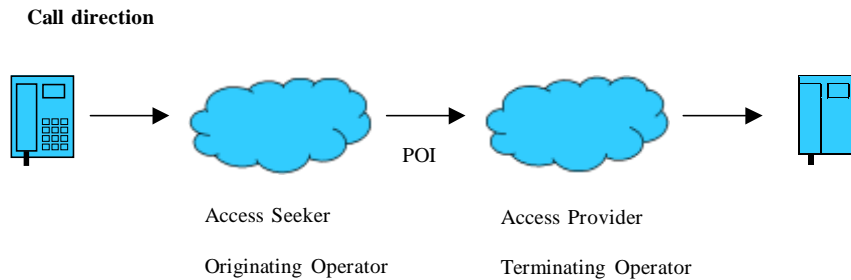
A.8.9. Routing principles: The conveyance of Emergency Calls shall be in accordance with the routing principles specified in Annex D – Operations and Maintenance Clause D.2.

A.8.10. Charging: The Access Seeker shall pay the Access Provider a charge calculated in accordance with the rates as specified in Annex G - Price List. The Access Provider shall bill the Access Seeker for this service in accordance with Annex E – Billing Processes.

A.9 Call Termination Service to Domestic Freephone Numbers

A.9.1. Service definition: The Call Termination Service to Domestic Freephone Numbers comprises the carriage of a voice Call (including facsimile transmission) originated by an end-user on the Network of the Access Seeker and handed over by the Access Seeker at a Point of Interconnection for termination at a Domestic Freephone Number on the Network of the Access Provider.

Diagram A.9: Call Termination Service to Freephone Numbers



A.9.2. **Call handover:** The Access Provider will hand over calls for Termination on Freephone Numbers on the Terminating Network in accordance with Clauses D.2.3. and D.2.4.

A.9.3. **Supply conditions:** The Access Provider shall not be obliged to provide the Call Termination Service to Freephone Numbers until the interconnection link service has been provisioned, and Points of Interconnection established, commissioned and tested.

A.9.4. **Technical requirements:** The Parties shall agree in advance all necessary technical requirements, including call set-up and clear-down sequences, for the conveyance of Terminating Calls. The technical standards and interfaces for this service shall be as set out in Schedules 1 and 2 to Annex C – Technical Specifications. Data Management Amendments for this service shall be carried out in accordance with Annex D – Operations and Maintenance, Clause D.16.

A.9.5 **Fault rectification and service restoration:** Each Party shall correct faults which occur in its Network which affect the conveyance of Terminating Calls to Domestic Freephone Numbers in accordance with such Party's normal engineering practices. For the avoidance of doubt, neither Party warrants that its Network is, or will be, free from faults. The Parties shall resolve any faults occurring in this service in accordance with Annex D – Operations and Maintenance Clauses D.6 – D.8.

A.9.6 **Quality of service:** The service standards set out in Annex H – Quality of Service Clauses H1, H2.1, H2.2, H4, H5.4, H5.5 and H6 shall apply to this service.

A.9.7. **Calling Line Identification:** Nature of Address and Calling Line Identification (CLI) for Network and presentation purposes shall be made available for all Terminating Calls delivered to the Access Provider's Network. Both must be transmitted transparently and without modification.

A.9.8. **Routing principles:** The conveyance of Terminating Calls shall be in accordance with the routing principles specified in Annex D – Operations and Maintenance Clause D.2.

A.9.9. **Charging:** The Access Provider shall not charge the Access Seeker for the conveyance of Call Termination traffic to Freephone Numbers, but it may charge the organisation receiving the Freephone calls. Any arrangements between the Access Provider and the Access Seeker for the recovery of call origination costs for the carriage of a voice Call (including facsimile transmission) originated by an end-user on the Network of the Access Provider and handed over by the Access Provider at a Point of Interconnection for termination at a Domestic Freephone Number on the Network of the Access Seeker shall be negotiated commercially between the Parties.

A.10 International Call Transit Service

A.10.1. **Service definition:** The International Call Transit Service comprises the carriage of a voice call (including facsimile transmission) originated by an end-user on the Network of the Access Seeker and handed over at a Point of Interconnection to be carried over the Network of the Access Provider to another Point of Interconnection for termination on a third Network outside The Bahamas which is not operated by the Access Provider but by another (International) Operator. As such, the Call Transit Service relates to the transmission of calls between the Access Seeker's Network and the Terminating Network, where these two networks are not physically interconnected.

Diagram A.10: International Call Transit Service



A.10.2. **Call handover:** A transit call shall be handed over at the Point of Interconnection in accordance with Clauses D.2.3 and D.2.4.

A.10.3. **Supply conditions:** The Access Provider shall not be obliged to provide the Transit Call service until the Joining Circuit Service has been provisioned, and Points of Interconnection established, commissioned and tested.

A.10.4. **Technical requirements:** The Parties shall agree in advance all necessary technical requirements, including call set-up and clear-down sequences, for the conveyance of Transit Calls. The technical standards and interfaces for this service shall be as set out in Schedules 1 and 2 to Annex C – Technical Specifications. Data Management Amendments for this service shall be carried out in accordance with Annex D – Operations and Maintenance, Clause D16.

A.10.5. **Fault rectification and service restoration:** Each Party shall correct faults which occur in its Network which affect the conveyance of International Transit Calls in accordance with such Party's normal engineering practices. For the avoidance of doubt, neither Party warrants that its Network is, or will be, free from faults. The Parties shall

resolve any faults occurring in this service in accordance with Annex D – Operations and Maintenance Clauses D.6 – D.8.

A.10.6 Quality of service: The service standards set out in Annex H – Quality of Service Clauses H.1, H.2.1, H.2.2, H.4, H.5.3, H.5.4 and H.6 shall apply to this service.

A.10.7. Calling Line Identification: Nature of Address and Calling Line Identification (CLI) for Network and presentation purposes shall be made available for all Transit Calls delivered to the Access Provider's Network. Both must be transmitted transparently and without modification.

A.10.8. Routing principles: The conveyance of Transit Calls shall be in accordance with the routing principles specified in Annex D – Operations and Maintenance Clause D.2.

A.10.9. Charging:

- a) The Access Seeker shall pay the Access Provider a transit charge calculated in accordance with the rates as specified in Annex G - Price List.
- b) The above assumes that the Access Seeker negotiates their own Bi-lateral agreements with international carriers for the termination of international calls and that direct accounting arrangements have therefore been agreed between Terminating and Originating Operators.
- c) Subject to agreement from the Access Provider, the Access Seeker may request inclusion in the Access Provider's Bi-lateral agreements under a separate commercial agreement.

The Access Provider shall bill the Access Seeker for this service in accordance with Annex E – Billing Process.

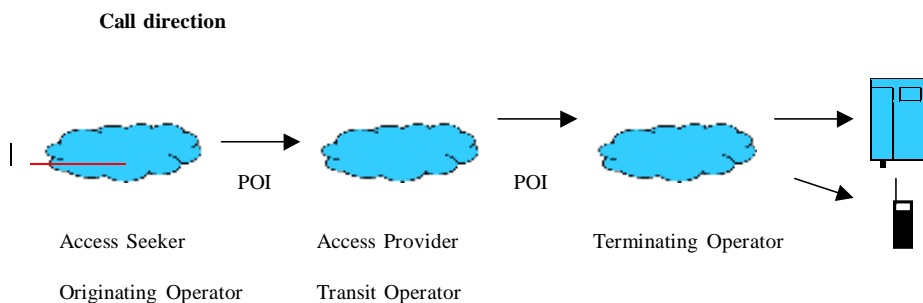
A.11 National Call Transit Service

A.11.1. Service definition: The National Call Transit Service comprises the carriage of a voice call (including facsimile transmission) originated by an end-user on the Network of the Access Seeker and handed over at a Point of Interconnection to be carried over the Network of the Access Provider to another Point of Interconnection for termination on a third Network in the Bahamas which is not operated by the Access Provider but by another Licensed Operator, or to the mobile network of the Access Provider. As such, the Call Transit Service relates to the transmission of calls between the Access Seeker's Network and the Terminating Network, where these two networks are not physically interconnected. The national call transit service is provided in the following forms:

- Single transit – where both Operators are interconnected to the same POI and traffic is routed over this POI only.
- Double transit – where traffic is routed between both POIs (which are on different islands).
- Mobile transit – where the calls are routed for termination on BTC's mobile network. The transit service to mobile will be available as:

- Single transit to mobile – where the POI and the MSC are on the same island.
- Double transit to mobile – where the POI and the MSC are on different islands.

Diagram A.11: National Call Transit Service (Picture relates to double transit)



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A.11.2. **Call handover:** A transit call shall be handed over at the Point of Interconnection Access Seeker in accordance with Clauses D.2.3 and D.2.4.

A. 11.3. **Supply conditions:** The Access Provider shall not be obliged to provide the Transit Call service until the Joining Circuit Service has been provisioned, and Points of Interconnection established, commissioned and tested.

A.11.4. **Technical requirements:** The Parties shall agree in advance all necessary technical requirements, including call set-up and clear-down sequences, for the conveyance of Transit Calls. The technical standards and interfaces for this service shall be as set out in Schedules 1 and 2 to Annex C – Technical Specifications. Data Management Amendments for this service shall be carried out in accordance with Annex D – Operations and Maintenance, Clause D.16.

A.11.5 **Fault rectification and service restoration:** Each Party shall correct faults which occur in its Network which affect the conveyance of National Transit Calls in accordance with such Party's normal engineering practices. For the avoidance of doubt, neither Party warrants that its Network is, or will be, free from faults. The Parties shall resolve any faults occurring in this service in accordance with Annex D – Operations and Maintenance Clauses D.6 – D.8.

A.11.6 **Quality of service:** The service standards set out in Annex H – Quality of Service Clauses H.1, H.2.1, H.2.2, H.4, H.5.3, H.5.4 and H.6 shall apply to this service.

A.11.7. **Fault rectification and service restoration:** Each Party shall correct faults which occur in its Network which affect the conveyance of Transit Calls in accordance

with such Party's normal engineering practices. For the avoidance of doubt, neither Party warrants that its Network is, or will be, free from faults.

A.11.8. Calling Line Identification: Nature of Address and Calling Line Identification (CLI) for Network and presentation purposes shall be made available for all Transit Calls delivered to the Access Provider's Network. Both must be transmitted transparently and without modification.

A.11.9. Routing principles: The conveyance of Transit Calls shall be in accordance with the routing principles specified in Annex D – Operations and Maintenance Clause D.2.

A.11.10. Charging:

- a) The Access Seeker shall pay the Access Provider a transit charge calculated in accordance with the rates as specified in Annex G - Price List
- b) Direct accounting arrangements will need to be agreed between the Terminating and Originating Operators in relation to any call termination or call origination services.

The Access Provider shall bill the Access Seeker for this service in accordance with Annex E – Billing Processes.

A12 SIP Interconnection

A.12.1 Service definition: An all-IP network interconnection between providers Networks, using SIP interconnections and IP transport to reduce the operational and capital costs of trunking off-net traffic between providers. At SIP network borders, a session border controllers (SBCs) are required to mediate the differences between service providers as well as provide security, quality and cost control at the ingress and egress of each provider's network. Ensuring robust security controls, deep interworking and mediation features, policy-based routing and admission control policies are in place

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A.12.2. A SIP Interconnection and IP transport between providers using SBC gateways to control number of sessions, security, interworking and mediation features as well as policy based routing and admission control policies.

A.12.3. Responsibilities of the Operators: The Access Seeker requiring the termination of its traffic on the Network of the Access Provider shall be responsible for providing IP transport and SBC Gateways (redundant) to allow Interconnect services between the Access Provider and Access Seekers Networks. Annex H – Quality of Service Standards Clause H.3.

A.12.4. Each Operator is responsible for maintaining the IP transport and SBC Gateways they provide.

A.12.5. The Terminating Operator is responsible for providing sufficient switch capacity at its end of the SIP Interconnect.

A.12.6. Technical requirements: The Parties shall agree in advance all necessary technical requirements for SIP Interconnect. Unless otherwise agreed between the Parties, the

technical standards and interfaces for this service shall be as set out in Schedules 1 and 2 to Annex C – Technical Specifications and in Clause C.3.

A.12.7. Unless otherwise agreed between the Parties, a minimum of two IP transport Paths and SBC Gateways will be provided for diversity..

A.12.8. Fault rectification and service restoration: Each Party shall correct faults which occur in its Network which affect the performance on the SIP Interconnect in accordance with such Party's normal engineering practices. For the avoidance of doubt, neither Party warrants that its Network is, or will be, free from faults. The Parties shall resolve any faults occurring in this service in accordance with Annex D – Operations and Maintenance Clauses D.6 – D.8.

A.12.9. If a fault in the Access Seeker's Network affects service in the Access Provider's Network, the Access Provider shall notify the Access Seeker immediately after it becomes aware of the problem and, if the problem has the potential to severely affect the Access Provider's network, then the Access Provider shall have the right to suspend service across the SIP Interconnect carrying the affected traffic until the fault has been repaired.

A.12.10. Provisioning: SIP Interconnect sessions shall be ordered and provided in accordance with Annex B – Ordering Processes.

A.12.12. Quality of service: The provisioning, repair and management of SIP Interconnection shall meet the quality of service standards set out in Annex H – Quality of Service Standards, Clauses H.1, H.2.3, H.3, H.5.1, H.5.2, and H.6.

A.12.13. Planned maintenance: The Parties shall provide each other with notice of 10 Working Days before any planned maintenance work which will cause an outage is due to take place on a SIP Interconnect .

A.12.14. Decommissioning: The Access Seeker may at any time give notice that it requires the Access Provider to cease providing the SIP Interconnect. Decommissioning shall be carried as set out in Annex D – Operations and Maintenance Clause D.14.

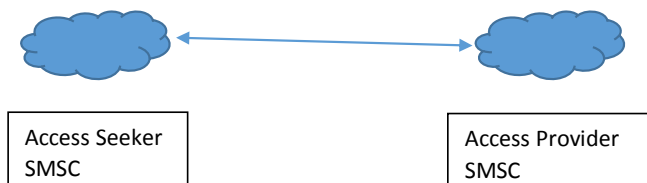
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A.13.SMS termination Service to Mobile Number

S

A.13.1. Service definition: means a short message service conforming to GSM 03.40 enabling text messages of up to 160 characters to be terminated or originated, or both originated and terminated, on compatible communications devices including but not limited to mobile devices connected to the Telecommunications Systems of the Parties. SMS Termination Service to Mobile Numbers, comprises the carriage of a voice Call (including facsimile transmission and low speed data transmissions like modems and DTMF keying) originated by a Customer on the Network of the Access Seeker and handed over by the Access Seeker at a Point of Interconnection for termination on a service identified by a Mobile Number on the Network of the Access Provider. SMS Call Termination Service to Mobile Numbers provides the routing of the call from the SMSC (Short Message Switching Centre) to the Mobile Number on the Network of the Access Provider.

Diagram A:13 SMSTermination Service to Mobile Numbers



A.13.2. Call handover: The Access Seeker will hand over SMS Termination calls on Mobile Numbers on the mobile Network in accordance with Clauses D.2.3 and D.2.4.

A.13.3. Supply conditions: The Access Provider shall not be obliged to provide the SMS Termination Service to Mobile Numbers until the Joining Circuit Service has been provisioned, and Points of Interconnection established, commissioned and tested.

A.13.4. Technical requirements: The Parties shall agree in advance all necessary technical requirements, including call set-up and clear-down sequences, for the conveyance of SMS Terminating Calls. The technical standards and interfaces for this service shall be as set out in Schedules 1 and 2 to Annex C – Technical Specifications. Data Management Amendments for this service shall be carried out in accordance with Annex D – Operations and Maintenance, Clause D.16.

A.13.5 Fault rectification and service restoration: Each Party shall correct faults which occur in its Network which affect the conveyance of SMS Calls to Mobile Numbers in accordance with such Party's normal engineering practices. For the avoidance of doubt, neither Party warrants that its Network is, or will be, free from faults.

The Parties shall resolve any faults occurring in this service in accordance with Annex D – Operations and Maintenance Clauses D.6 – D.8.

A.13.6 **Quality of service:** The service standards set out in Annex H – Quality of Service Clauses H.1, H.2.1, H.2.2, H.4, H.5.3 H.5.4 and H.6 shall apply to this service.

A.13.7. **Calling Line Identification:** Nature of Address and Calling Line Identification (CLI) for Network and presentation purposes shall be made available for all Terminating Calls delivered to the Access Provider's Network. Both must be transmitted transparently and without modification.

A.13.8. **Routing principles:** The conveyance of SMS Terminating Calls shall be in accordance with the routing principles specified in Annex D – Operations and Maintenance Clause D.2.

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A.14 The Joining Circuit Service

A.14.1. **Service definition:** The Joining Circuit Service is the provision of a T1 capacity between the Access Provider's Network and the Network of the Access Seeker for the transport of traffic between the Networks of the Access Provider and Access Seeker.

A.14.2. A Joining Circuit is a T1 (1.544 Mbps capacity) circuit provided over a Joining Path.

A.14.3. **Responsibilities of the Operators:** The Access Seeker requiring the termination of its traffic on the Network of the Access Provider shall be responsible for ordering the Joining Circuit. It shall order sufficient interconnection capacity in advance to ensure that congestion on Joining Circuits does not exceed the quality of service standards in Annex H – Quality of Service Standards Clause H.3.

A.14.4. Each Operator is responsible for maintaining the Joining Circuits and the Joining Paths they provide.

A.14.5. The Terminating Operator is responsible for providing sufficient switch capacity and port capacity at its end of the Joining Circuit.

A.14.6. **Technical requirements:** The Parties shall agree in advance all necessary technical requirements for Joining Circuits. Unless otherwise agreed between the Parties, the technical standards and interfaces for this service shall be as set out in Schedules 1 and 2 to Annex C – Technical Specifications and in Clause C.3. Synchronisation

requirements shall be agreed between the Parties, as set out as in Annex C – Technical Specifications, Clause C.1.16.

A.14.7. Unless otherwise agreed between the Parties, a minimum of two Joining Circuits shall be provided over diverse Joining Paths.

A.14.8. **Fault rectification and service restoration:** Each Party shall correct faults which occur in its Network which affect the performance on the Joining Circuits in accordance with such Party's normal engineering practices. For the avoidance of doubt, neither Party warrants that its Network is, or will be, free from faults. The Parties shall resolve any faults occurring in this service in accordance with Annex D – Operations and Maintenance Clauses D.6 – D.8.

A.14.9. If a fault in the Access Seeker's Network affects service in the Access Provider's Network, the Access Provider shall notify the Access Seeker immediately after it becomes aware of the problem and, if the problem has the potential to severely affect the Access Provider's network, then the Access Provider shall have the right to suspend service across the Joining Circuits carrying the affected traffic until the fault has been repaired.

A.14.10. **Provisioning:** Joining circuits shall be ordered and provided in accordance with Annex B – Ordering Processes.

A.14.11. **Charging:** The Access Seeker shall pay the Access Provider for the provision of Joining Circuits in accordance with Annex G – Price List Clause G.12. The Access Provider shall bill the Access Seeker for this service in accordance with Annex E – Billing Processes.

A.14.12. **Quality of service:** The provisioning, repair and management of Joining Circuits shall meet the quality of service standards set out in Annex H – Quality of Service Standards, Clauses H.1, H.2.3, H.3, H.5.1, H.5.2, and H.6.

A.14.13. **Planned maintenance:** The Parties shall provide each other with notice of 10 Working Days before any planned maintenance work which will cause an outage is due to take place on a Joining Circuit.

A.14.14. **Decommissioning:** The Access Seeker may at any time give notice that it requires the Access Provider to cease providing the Joining Circuits. Decommissioning shall be carried as set out in Annex D – Operations and Maintenance Clause D.14.

A.15 Points of Interconnection

Forms of Interconnection

A.15.1. The Access Seeker may request interconnection at a Point of Interconnection with the following options:

- Physical co-location
- Customer-sited interconnection
- In-span interconnection

along with any ancillary services required at these sites.

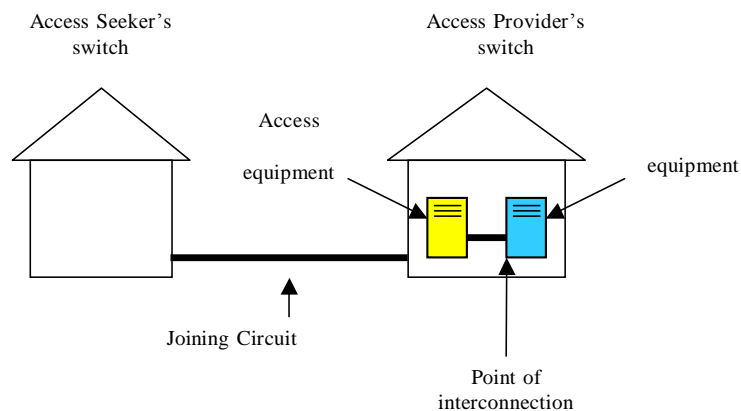
A 1.5.2. The Access Seeker will follow the procedure set out in Annex B for the Service Request, the initiation of the Feasibility Study, the Advanced Facility Order and the Firm Facility Order for physical co-location space. If the Access Provider is unable to provide a physical co-location service at the requested Point of Interconnection, it shall propose arrangements for customer-sited interconnection or in-span interconnection in its Considered Response to the Service Request. The Access Provider shall have no duty to build or acquire additional space in a co-location facility if no space is available for co-location equipment.

A.1.5.3. **Decommissioning:** The process and charging for the removal of Points of Interconnection shall be as set out in Annex D.

Physical Co-location

A.1.5.4. **Service definition:** The Physical Co-location Service comprises the provision of space for equipment, along with supporting services, for the Access Seeker in premises controlled by the Access Provider for the purposes of interconnection. Physical co-location need not be provided on the same floor of a multi-storey building or the same room that houses the relevant switch of the Access Provider. The Point of Interconnection is established at the Access Seeker's side of the digital or optical distribution frame of the Access Provider's switch.

Diagram A.12: Physical Co-location



A.1.5.5. **Responsibilities of the Parties:** The Access Seeker is responsible for the ordering of physical co-location space and services, and for the ordering, installation and

maintenance of the equipment it places in this space. The Access Provider is responsible for the provision of space, electric power and air conditioning, and for providing access, under the conditions set out in Annex D - Operations and Maintenance Schedule 1 for the nominated staff of the Access Seeker.

A.1.5.6. The Access Seeker shall specify in the Service Request the technical requirements for the equipment to be co-located.

A.1.5.7. **Supply conditions:** If requested by the Access Seeker, the Access Provider will install caging for the equipment provided by the Access Seeker at the Access Seeker's cost. If the proposed caging:

- (a) reduces the space available in aisles or other circulation space to an amount deemed by the Access Provider to put the health and safety of its employees at risk,
- (b) threatens the safe and efficient operation of its equipment, compromises the requests made for future co-location space by the Access Provider or other Access Seeker, or
- (c) affects significantly the planning, operation or maintenance of the site,

the Access Provider has the right to refuse the request for caging on a case by case basis.

A.1.5.8. The Access Seeker may have access to its co-located equipment on the terms set out in Annex D - Operations and Maintenance. The Access Provider may have access to the co-located equipment after agreement from the Access Seeker in order to carry out planned and routine maintenance on buildings, ancillary services etc. In the case of an emergency caused by or affecting the co-located equipment the Access Provider shall have immediate access to the co-located equipment, and shall inform the Access Seeker immediately it becomes aware of such emergency.

A.1.5.9. **Interference:** Each Party shall ensure that its co-located equipment does not cause any interference at any time with the other Party's equipment, plant, facilities, Networks and to the equipment of any other occupying Access Seekers in the co-location site. In the event of any interference, the Parties shall take in good faith, reasonable measures to resolve the problem promptly.

A.1.5.10. Where the Access Seeker's equipment is causing interference to existing equipment at the co-location site, whether belonging to the Access Provider or to another party, and the interference problem cannot be resolved, the Access Seeker shall promptly remove the source of interference.

A.1.5.11. If the Access Provider determines that the interference poses an immediate risk of personal injury or significant property damage, it may at the Access Seeker's cost, take measures necessary to prevent any injury or damage. If the Access Provider does not determine that the interference poses an immediate risk, the Access Provider will provide the Access Seeker with five working days notice to rectify the interference problem.

After such time, if the interference continues, the Access Provider may at the Access Seeker's cost, take measures to prevent the interference.

A.15.12. **On site works:** The Access Seeker shall obtain the consent of the Access Provider before carrying out any physical works on the co-location building, space or equipment. No flammable or hazardous materials shall be used by the Access Seeker, nor brought onto the site, whether on a permanent or temporary basis, during and after the installation period without the Access Provider's consent. Subject to the availability of suitable space, the Access Provider commits to providing the Access Seeker with temporary unpacking facilities where crated equipment can be unpacked prior to installation in the designated co-location area.

A.15.13. Where, during the course of installation, operation, maintenance, replacement or repair of its co-located equipment the Access Seeker causes any damage to the Access Provider's co-location site, plant, Network, equipment or facilities, the Access Seeker must report the damage immediately to the Access Provider. The Access Provider shall rectify any damage in the most appropriate way and the reasonably incurred costs in connection with the damage, including for the repair thereof, shall be borne by the Access Seeker.

A.15.14. **Accidents:** The Access Seeker shall report immediately any incident, injury, harm, fatal or otherwise that occurs at the Co-Location Site to the Access Provider. For fatal or serious accidents, the accident site shall be left undisturbed so that the relevant authority can investigate the circumstances leading to the accident. The Access Seeker shall report immediately to the relevant authorities any fatal accident having occurred at the co-location facility.

A.15.15. **Correct installation:** On completion of the installation of the co-located equipment in the co-location facility, the Access Seeker shall advise the Access Provider and request the Access Provider to conduct an inspection. If the installation does not conform to the agreed installation plans and standards, the Access Provider shall notify the Access Seeker, who will re-install or take other appropriate corrective action within ten working days of notification, or such other time as is otherwise agreed.

A.15.16. **Maintenance:** The Access Seeker shall be responsible for the operation and maintenance of its co-location equipment. It must:

- (a) exercise due care as would be expected from a competent Licensed Operator
- (b) keep the co-location facility in a tidy and safe condition at all times; and
- (c) ensure that flammable or toxic material is not left in or around the co-location facility following maintenance or other operations.

A.15.17. If the Access Seeker detects a fault, defect or problem with the co-location equipment of the Access Seeker, which causes or may cause damage to the co-location facility or Access Provider's facilities, the Access Seeker must:

- (a) notify Access Provider as soon as practicable; and

(b) repair the fault, defect or problem or take other appropriate corrective action immediately.

A.15.18. If the Access Seeker detects a fault, defect or problem in the co-location facility, it must notify the Access Provider as soon as possible.

A.15.19. **Rights of occupation:** The Physical Co-location Service shall give the Access Seeker a right of occupation for the agreed period of time, but shall not constitute a lease or create any other right over the land and buildings occupied by the Access Provider. The right of occupation may not be assigned to a third party. Unless otherwise agreed between the Parties, the right of occupation shall be for a period of three years.

A.15.20. At the end of the period of occupation, the Access Seeker will be liable for any costs incurred in restoring the co-location space to the condition in which it was before the co-location service commenced.

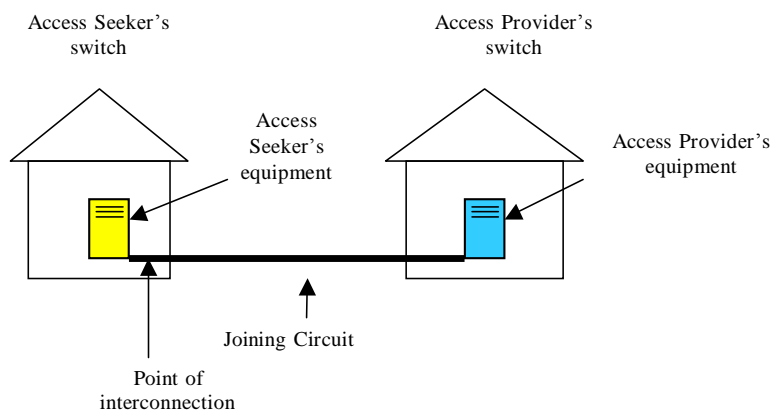
A.15.21. **Charging:** For the provision of the Physical Co-location Service by the Access Provider, the Access Seeker shall pay the Access Provider charges calculated in accordance with the rates as specified in Annex G – Price List. The Access Provider shall bill the Access Seeker for this service in accordance with Annex E – Billing Processes.

A.15.22. **Removal of equipment:** The Access Seeker has the right to remove or change its co-located equipment at any time, subject to the access terms and conditions agreed under Annex D – Operations and Maintenance.

Customer sited interconnection

A.15.23. **Service definition:** The Customer Sited Interconnection Service comprises the provision of the Point of Interconnection in the premises of the Access Seeker. The Point of Interconnection is established at the Access Provider's side of the digital or optical distribution frame of the Access Seeker's switch. The Access Provider's equipment is typically placed in premises in which the Point of Interconnection is located.

Diagram A.15: Customer Sited Interconnection

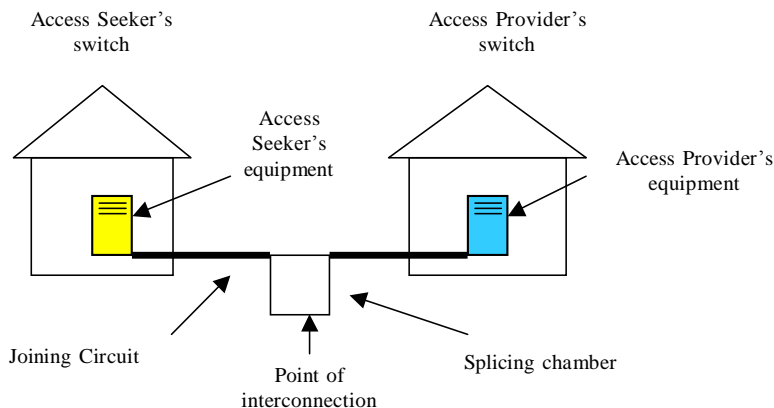


A.15.24. **Responsibilities of the Parties:** The Access Seeker is responsible for the sourcing and ordering of Customer Sited Interconnection space and services, for the maintenance of the equipment it places in this space. The tariffs for such services are to be negotiated as part of the terms and conditions relating to Interconnection Services provided by the Access Seeker.

In-Span Interconnection

A.15.25. **Service definition:** The service comprises the provision of the point of handover at a point between the switch nominated by the Access Provider to receive interconnection traffic and the equipment operated by the Access Seeker. The point of handover may be achieved by a splice between the fibres provided by the Access Seeker and the Access Provider, or by drawing a fibre from a footway box into the building concerned. The physical form of the Joining Circuit may be via a footway box or direct between the two premises.

Diagram A.14: In span interconnection



A.15.26. The Access Seeker will propose the exact location of the point of handover in its Service Request. The Access Provider will respond to this proposal in its Considered Response.

A.15.27. **Responsibilities of the Parties:** The Access Seeker is responsible for the ordering of the In Span Interconnection Service.

A.15.28. **Charging:** Each Party shall bear its own costs of providing access from its switch to the agreed Point of Interconnection. One Party may request the other Party to provide its portion of the Service, and will pay the charges set out in the Firm Estimate in accordance with Annex B – Ordering Processes, Clause 6.12. The Access Provider shall bill the Access Seeker for this service in accordance with Annex E – Billing Processes.

Schedule 1 to Annex A: List of services taken

	Service	Included (tick box)
A1	Call Termination Service to Geographic Numbers	
A2	Call Termination Service to Non-Geographic Numbers	
A3	Call Termination Service to Mobile Numbers	
A4	Call Termination Service to Automated Ancillary Services	
A5	Directory Enquiries	
A6	Directory Number Inclusion Service	
A7	Operator Assistance Services	
A8	Emergency Call Services	
A9	Call Termination Service to Freephone Numbers	
A10	International Call Transit Service	
A11	National Call Transit Service <ul style="list-style-type: none"> - Intra-island - Inter-island - Intra-island to mobile - Inter-island to mobile 	
<u>A12</u>	<u>SIP Interconnection</u>	
<u>A13</u>	<u>SMS</u>	
<u>A14</u>	Joining Circuit Service	
<u>A15</u>	Points of Interconnection <ul style="list-style-type: none"> - Physical co-location - Customer-sited interconnection - In span interconnection 	

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Annex B – Ordering Processes

B.1 Requests for interconnection services

B.1.1. This Annex sets out the general procedure that will apply for handling requests from the Access Seeker for new Interconnection Services and additional Interconnection Services.

B.2 Service requests

B.2.1. If a specific format for the application for any Interconnection Service has not been agreed by the Parties, a Service Request may be in the format of a business letter (see Schedules 1 and 2 to this Annex for proposed templates). The Service Request should be sent to the person nominated in Schedule 1 - Contact Details.

B.3 Response to service request by access provider

B.3.1. On receipt of a Service Request for an Interconnection Service the Access Provider shall confirm receipt of the Service Request within one (1) Working Day and shall examine the request and provide both a Preliminary Response and a Considered Response to the Access Seeker.

B.3.2. **Preliminary Response:** The Access Provider shall provide a Preliminary Response within 5 Working Days containing at least the following information:

- Acknowledgment of receipt of the Service Request.
- The names of the personnel who will represent the Access Provider in the negotiations or other dealings to obtain the Interconnection Service.
- An indication of whether the Service Request may be met or not, and if met, whether in full or in part, or whether additional time is required to assess the Service Request.
- Additional information, if any, that is required by the Access Provider in order to finalise its assessment of the Service Request. The Access Provider shall justify why this additional information is required.

B.3.3. **Additional information:** Where the Access Provider has requested additional information that it requires to complete the assessment of the Service Request, the Access Seeker shall take all reasonable steps to provide that information.

B.3.4. **Considered Response:** Within 15 Working Days of the receipt of the Service Request or of the date on which a reply was received to a request for additional information, whichever is the later, the Access Provider shall give the Access Seeker the Considered Response. The Considered Response shall advise whether the Service Request:

- will be met in all its terms. (This constitutes full acceptance of the Service Request.)
- will not be met at all. (This constitutes full rejection of the Service Request.)
- will be met in part in terms of volume, location and/or timescale. (This constitutes part acceptance of the Service Request.)
- requires additional time for assessment. (This constitutes a statement that additional time is required to assess the Service Request by the Access Provider.)
- cannot be assessed for lack of information. (This constitutes a conditional rejection of the Service Request.)

B.3.5. Where there is full acceptance of the Service Request, the Parties shall institute the appropriate provisioning processes set out below.

B.3.6. Where there is full rejection of the Service Request:

- (a) the Access Provider shall provide a statement of reasons for the rejection at the same time as the Service Request is rejected.
- (b) after receipt of the statement of reasons referred to in paragraph (a) above, or, in any case, within 10 Working Days from:
 - (i) the date of the Considered Response, or
 - (ii) the due date of the Considered Response in case of late reply,

the Access Seeker may initiate the dispute resolution procedures in Annex F – Dispute Procedure.

B.3.7. Where there is part acceptance of the Service Request, the Parties will jointly consider how to progress the matter, and clarify whether the Access Seeker wishes to proceed with the provisioning of the Interconnection Services that the Access Provider accepts can be provided. After such joint consideration, and, in any case, within 15 Working Days from:

- (i) the date of the Considered Response, or
- (ii) the due date of the Considered Response in case of late reply,

the Access Seeker may initiate the relevant dispute resolution procedures in Annex F – Dispute Procedure.

B.3.8. Where the Access Provider indicates that more time is required to assess the Service Request:

- (a) the Access Provider shall at the same time as it indicates that more time is required, advise in writing the additional time required and reasons why it is required. Unless agreed otherwise with the Access Seeker, the additional time required shall not exceed 10 Working Days.
- (b) after receipt of the advice referred to in paragraph (a) above, or, in any case, within 10 Working Days of:
 - (i) the date of the Considered Response, or

- (ii) the due date of the Considered Response in case of late reply,
- or a longer period as agreed between the Parties under Clause B.3.8 (a), the Access Seeker may initiate the relevant dispute resolution procedures in Annex F – Dispute Resolution.

B.4 Expedition and responsiveness

B.4.1. In following the general application and response procedures outlined in this Annex the Parties shall act with all reasonable expedition and not take the full time permitted for each part of the process unless the action occupies all of that time.

B.4.2. The Parties shall do all things reasonably necessary to ensure that, to the maximum practical extent, applications for Interconnection Services are fully accepted. Without limiting the meaning of this requirement, it may include informal meetings between staff and employees of the Parties to clarify and otherwise facilitate the Service Request and its consideration. The Parties shall not limit themselves to formal communications where informal and other processes appear to either Party to be sensible and useful.

B.4.3 The Licensees shall use best endeavours to conclude a contract providing for the purchasing, delivery and installation of interconnection links or joining circuits forthwith but in any event within **one (1) month** following receipt or the making of a valid request to negotiate an interconnection agreement, unless the parties mutually agree to a shorter or longer timeframe or an extension of time is granted by URCA.

B.4.4 The Licensees shall effect operational interconnection by the completion of acquisition and installation of physical interconnection links or joining circuits, inclusive of testing within **three (3) months** of signing the contract to deliver or obtain interconnection.

B.4.5 The Licensees are allowed a further **two (2) months** for the conclusion of an executed full interconnection agreement on terms consistent with the BTC RAIO or any other URCA mandated terms and conditions, as well as other access and interconnection services.

B.5 Provisioning processes for traffic services

B.5.1. **Scope:** This section sets out the forecasting, ordering, provisioning and implementation processes for traffic services required from the Access Provider. It covers the following services as set out in Annex A – Service Schedules:

- A.1. Call Termination Service to Geographic Numbers
- A.2. Call Termination Service to Non-geographic Numbers
- A.3. Call Termination Service to Mobile Numbers
- A.4. Call Termination Service to Automated Ancillary Services
- A.5. Directory Enquiries
- A.7. Operator Assistance Services
- A.8. Emergency Call Services
- A.9. Call Termination Service to Freephone Numbers
- A.10. International Call Transit Service
- A.11. National Call Transit Service
- [A.12 SIP Interconnection Service](#)
- [A.13 SMS](#)

B 5.2 **Service Request:** The Access Seeker requiring the services listed above from the Access Provider for the first time must apply in accordance with the procedure outlined in Clause B.2 above.

B.5.3. **Planning and forecasting:** The Parties will regularly exchange information and co-ordinate the planning of the interconnected Networks so that services can be provided efficiently and operational problems avoided. The Parties shall prepare a Network Plan to guide the provision of Interconnection and other Services between the Parties. During the negotiations over this Agreement, BTC's and the other Operator's engineers will meet and exchange their network plans. These plans will show the layout and capacity of the metropolitan/transmission network, the signalling network, the points of interconnection

(POI) and other points of presence, along with any proposed changes during the next 3 years. This information will be classified as confidential between the Operators. During these meetings the Operators will discuss and agree the initial requirements for interconnection, including POI, number of ports required at each POI, Joining Paths and Joining Circuits, and technical interfaces. As a minimum, interconnection should be at two POI with two separate Joining Paths to each in order to provide resilience.

B5.3.1 The Parties will regularly exchange information and co-ordinate the planning of the interconnected Networks so that services can be provided efficiently and operational problems avoided. The Parties shall prepare a Network Plan to guide the provision of Interconnection and other Services between the Parties. During the negotiations over this Agreement, both Operators' engineers will meet and exchange their network plans. These plans will show the layout and capacity of the SIP Interconnect and IP transport, along with any proposed changes during the next 3 years. This information will be classified as confidential between the Operators. During these meetings the Operators will discuss and agree the initial requirements for interconnection.

B.5.4 These meetings will be repeated at least every 12 months and revised network plans should be updated by the end of July of each year (in accordance with Clause 12.2). The Operators will also discuss their likely capacity requirements over the next 12 months, and will exchange port forecasts. This information will show the number of ports required at each POI in each six-month period over the coming 18 months. This information will be used for budgeting purposes, and does not represent a commitment on the part of the Operators to purchase or to supply.

B.6 Facilities services

B.6.1. **Scope:** This section sets out the ordering, forecasting, provisioning and implementation processes for facilities required from the Access Provider. It covers the services as set out in:

- A.6 – Directory Number Inclusion Service
- A.13 – Points of Interconnection

B.6.2. **Service Request:** The Access Seeker requiring the services as listed in Clause B.6.1 above from the Access Provider must apply in accordance with the procedure in Clause B.2 above in respect of each location.

B.6.3. **Feasibility Studies:** The Access Provider will undertake a feasibility study at the same time as it evaluates the Service Request and within the same timescales as set out in Clause B.3. This study will establish whether it is technically, physically and economically feasible to provide the Service Request in the locations indicated.

B.6.4. For Points of Interconnection, the feasibility study will establish what form of interconnection (co-location, customer sited interconnection or in-span interconnection) is most appropriate to meet the Service Request after taking into account the factors described in Clause B.6.5, along with the feasibility of any alternatives.

B.6.5. For Service Requests for Physical Co-location, the feasibility study will examine whether there is sufficient space available after taking into account the Access Provider's (and any other co-located operator's) reasonable plans for any changes at the location, and whether there are sufficient support resources, including power and air conditioning, for the services requested. It will also take into account any restrictions placed on the site's usage by any landlord, rights of usage, planning or environmental authority or other relevant body.

B.6.6. On the completion of the feasibility study the Access Provider will decide whether the Service Request can be met or cannot be met, and if it can be met, it will make an estimate of the cost to the Access Seeker and the timescales for provision. The decision will be provided to the Access Seeker as the Considered Response (as set out in Clause B.3.4). The Considered Response for Points of Interconnection will indicate whether there are any important constraints on the Service Request, such as closure plans, access restrictions, lack of expansion space etc.

B.6.7. For Service Requests relating to Joining Circuits the process in Clause B.8 for New Services will be followed.

B.6.8. If the Access Provider concludes that the Service Request cannot be met, the Access Provider shall give verifiable reasons for its decision and suggest an alternative plan to meet the request. If the Access Seeker is not satisfied with the response, the alternative or preliminary commercial terms, it may submit a revised Service Request or escalate the issue in line with the dispute resolution procedures in Annex F – Dispute Procedure.

B.6.9. As set out in Clause B.3.4, the Access Provider will complete the Feasibility Study and provide a Considered Response within 15 Working Days of the receipt of the Service Request (or of further information if this has been requested under Clause B.3.2).

B.6.10. **Advanced Facility Order:** The Access Seeker may submit an Advanced Facility Order following the completion of the Feasibility Study and the provision of the Considered Response. The Advanced Facility Order will set out:

- (a) The specific services required
- (b) The location at which the services are required
- (c) The date at which the services are required
- (d) Relevant technical and physical specifications
- (e) Access requirements, and
- (f) Any other relevant specifications

B.6.11. The Access Provider will acknowledge the receipt of the Advanced Facility Order within two Working Days and indicate the deadline for the submission of the Firm Estimate, which will be not later than 20 Working Days from the receipt of the Advanced Facility Order.

B.6.12. The Access Provider will then provide the Access Seeker with a Firm Estimate for the cost of providing the services requested and a firm delivery date. It will also set out the commercial terms for the service and any testing or other acceptance processes and timescales.

B.6.13. **Firm Facility Order:** The Access Seeker may then submit a Firm Facility Order after it has received the Firm Estimate. This will commit the Access Seeker and the Access Provider to the implementation of the Advanced Facility Order. If the Firm Facility Order is sufficiently different from the Advanced Facility Order so that the

estimates of cost and delivery timescales are no longer valid, the Access Provider may reject the Firm Facility Order and require the Access Seeker to submit a new Advanced Facility Order.

B.6.14. The Access Provider shall then issue an Order Acknowledgement to the Access Seeker. This confirms that the order has been received, is correctly completed, and is being processed. All delivery timescales are measured from the time at which the Firm Facility Order Acknowledgement is issued.

B.6.15. Once the Order Acknowledgement has been issued, the Access Provider will invoice the Access Seeker for 25% of the advance rental or other sums as set out in the commercial terms in the Firm Estimate.

B.6.16. **Delivery and testing:** The Access Seeker and Access Provider will agree and implement a testing and acceptance programme as appropriate to the service requested.

B.6.17. Once the requested service has been accepted, the Access Provider will invoice the Access Seeker for the remainder of the advance rental or other sums as set out in the commercial terms in the Firm Estimate.

B.6.18. **Quality of service:** The Access Provider shall deliver facilities services in line with the targets set out in Annex H – Quality of Service Standards. These targets exclude any delays caused by the Access Seeker. The delivery targets for other facilities will be agreed between the Access Provider and the Access Seeker.

B.7 Joining circuits

B.7.1. **Scope:** This section sets out the ordering, provisioning and implementation processes for:

A.12 – Joining Circuits

B.7.2. **Service Request:** If the Access Seeker requires a new Joining Circuit on a new Joining Path from the Access Provider, it must apply in accordance with the procedure in Clause B.2. The Access Provider shall in its Considered Response give a Firm Estimate of the cost (if any) to be charged to the Access Provider as well as to the Access Seeker. There is no need for a Service Request for additional circuits on an existing Joining Path. Where the Access Seeker requires additional Joining Circuits on an existing Joining Path, it will request confirmation that spare capacity exists with a business letter to the Access Provider before submitting a Firm Capacity Order.

B.7.3 Joining Paths will be mutually planned and constructed. BTC will charge for Joining Circuits provided to the Access Seeker on Joining Paths constructed and maintained by BTC in accordance with Annex G – Price List, Clause G.12. On a bi-directional Joining Circuit these charges, inclusive of Joining Path charges, will be shared between the Access Provider and the Access Seeker based on the use of the Joining Circuit by the traffic flows between the Access Provider and Access Seeker. On a uni-

directional Joining Circuit, the distance dependent charge will be shared between the Access Provider and the Access Seeker based on their respective installed capacity of Joining Circuits on the Joining Path. The Access Provider and Access Seeker will mutually decide whether the Joining Circuit should be bi-directional or uni-directional.

B.7.4 If the Access Seeker considers that the use of new equipment will result in a lower price than set out in the Firm Estimate, or that it can provide the Joining Circuit at a lower cost than the Access Provider, it should provide an alternative Firm Estimate. The Access Provider will give due consideration to the alternative Firm Estimate, and provided that the alternative complies with the requirements set out in this Agreement (including Annex C – Technical Specifications) and that the Access Provider considers the alternative Firm Estimate to be reasonable after carrying out any necessary validation, it will proceed on the basis of the alternative Firm Estimate.

B.7.5. **Firm Capacity Order:** Provided that the Access Provider has accepted the relevant Service Request for the Joining Circuit Service on which the capacity is required, the Access Seeker may submit a Firm Capacity Order for the new or additional circuits, as described in the Service Request to the Access Provider. The order form indicates the A and B end of the link, the initial number of circuits required and the desired delivery date.

B.7.6. The Access Provider shall then issue an Order Acknowledgement to the Access Seeker. This confirms that the order has been received, is correctly completed, and is being processed. On receipt of the Firm Order, the Access Provider will issue an invoice for 25% of any one-off charges, as set out in Annex G – Price List, and as may be applicable.

B.7.7. **Delivery and testing:** The Access Provider shall confirm to the Access Seeker whether or not the planned delivery date will be met 5 Working Days (10 in the case of a new Joining Circuit) before the planned delivery date given in the Firm Capacity Order Acknowledgement. If the planned delivery date cannot be met, the Access Provider shall submit a revised delivery date.

B.7.8. As soon as the circuits have been delivered, the Access Provider shall send a Ready for Test notice to the Access Seeker. The Access Seeker shall arrange a date and time for testing with the Access Provider, giving the Access Provider at least 5 Working Days notice. Access Seeker and Access Provider shall make reasonable endeavours to complete testing in the shortest appropriate time.

B.7.9. The Access Provider shall issue an invoice for the remainder of the connection charge, and start to bill for the rental of circuits on a new Link from the completion of the test. Billing for circuits on an existing link will start on the delivery date.

B.7.10. **Quality of service:** The Access Provider shall deliver Joining Circuits in line with the targets set out in Annex H – Quality of Service Standards Clauses H.1, H.2.3, H.3, H.5 and H.6. These targets exclude any delays caused by the Access Seeker.

B.7.11. Removal of Capacity: If the Access Seeker requires the removal of Joining Circuits, an order identifying the Capacity and the date from which it should be removed may be placed by the Access Seeker on the Access Provider. If accepted, the Access Provider will remove the Switch Capacity and associated Joining Circuits not later than thirty (30) Working Days from the date of receipt of the removal order. This timescale may be extended if agreed in writing by the Access Seeker and the Access Provider in order to coincide with a planned programme of work. However, if the Access Provider does not agree then the Access Provider may notify the Access Seeker in writing of a Dispute and Capacity will not be removed until agreement has been reached or the Dispute is resolved.

B.8 New interconnection services

B.8.1. This Section sets out the general procedure that shall apply for handling requests from Access Seekers for New Interconnection Services falling within the scope of the services required to be offered under the Reference Access and Interconnection Offer.

B.8.2. Such New Interconnection Services shall be incorporated as additional Schedules to this RAIO and included in the corresponding Access and Interconnection Agreement once specific arrangements dealing with specifications, prices and other terms have been agreed.

B.8.3. **Non-discrimination:** Following the successful completion of a New Interconnection Service, the Access Provider shall modify the RAIO to include that new service and offer it to existing Interconnected Operators.

B.8.4. **Reciprocity:** A new Interconnection Service will be provided on a reciprocal basis only if this is agreed to by the Access Seeker.

B.8.5. **Form and Content of a New Interconnection Service Request:** The Parties may agree on a suitable template for the application for a new Interconnection Service. In the absence of such an agreement a business letter will suffice (see attachment A and B for a template).

B.8.6. **Preliminary Response:** On receipt of a Request for a New Interconnection Service, the Access Provider shall examine the request, set up a feasibility study and provide both a Preliminary Response and a Considered Response to the Access Seeker.

B.8.7. The Access Provider shall provide a Preliminary Response to the Access Seeker within ten (10) Working Days containing at least the following information:

- a) acknowledgment of receipt of the New Interconnection Service Request;
- b) the names of the personnel who shall represent the Access Provider in the negotiations or other dealings to obtain the New Interconnection Service;
- c) an indication of whether the New Interconnection Service Request can be met or not, and if met, whether in full or in part, or what further additional time is required to assess the New Interconnection Service Request;

- d) additional information, if any, that is required by the Access Provider in order to finalise its assessment of the New Interconnection Service Request.

B.8.8. Additional information: Where the Access Provider has requested additional information that it requires in the Preliminary Response to complete the assessment of the New Interconnection Service Request, the Access Seeker shall take all reasonable steps to provide that information. The Parties shall produce an agreed New Interconnection Service Request based upon the initial requirements and any additional information requested under this Clause.

B.8.9. The New Interconnection Service Request: shall be agreed within ten (10) Working Days of initial receipt or within ten (10) Working Days after receiving the additional information whichever is the later. The Access Provider may suspend consideration of the New Interconnection Service Request until it receives a response from the Access Seeker. The time elapsed between seeking the additional information and receiving such information shall be excluded from the timescales outlined in this Clause.

B.8.10. Considered Response: Within thirty (30) Working Days of the receipt of the New Interconnection Service Request or of the date on which a reply is received to a request for additional information, whichever is the later, the Access Provider shall give the Access Seeker the Considered Response. The Considered Response shall advise whether the New Interconnection Service Request:

- will be met in all its terms. (This constitutes full acceptance of the New Interconnection Service Request.)
- will not be met at all. (This constitutes full rejection of the New Interconnection Service Request)
- will be met in part in terms of volume, location and/or timescale. (This constitutes part acceptance of the New Interconnection Service Request.)
- requires additional time for assessment. (This constitutes a statement that additional time is required to assess the New Interconnection Service Request by the Access Provider.)
- cannot be assessed for lack of information. (This constitutes a conditional rejection of the New Interconnection Service Request.)

B.8.11. Full rejection: Where there is full rejection of the New Interconnection Service Request, the Access Provider shall provide a statement of reasons for the rejection within ten (10) Working Days from the date of the Considered Response. Within twenty (20) Working Days from the date of the Considered Response, the Access Seeker may initiate the dispute resolution procedures in Annex F – Dispute Resolution in this Agreement.

B.8.12. Unable to meet time scales: Where the Access Provider is unable to meet the time scales required by the Access Seeker the Parties shall jointly consider the matter and clarify whether the Access Seeker wishes to proceed with the provisioning of the Interconnection Service. Within twenty (20) Working Days from the date of the

Considered Response the Access Seeker may initiate the relevant dispute resolution procedures in Annex F – Dispute Resolution in this Agreement.

B.8.13. Part acceptance: Where there is part acceptance of the New Interconnection Service Request, the Parties shall jointly consider how to progress the matter, and clarify whether the Access Seeker wishes to proceed with the provisioning of the New Interconnection Service that the Access Provider accepts can be provided. After such joint consideration and in any case within thirty (30) Working Days from the date of the Considered Response the Access Seeker may initiate the relevant dispute resolution procedures in Annex F – Dispute Resolution in this Agreement.

B.8.14. More time required: Where the Access Provider indicates that more time is required to assess the New Interconnect Service Request, the Access Provider shall, within ten (10) Working Days of the Considered Response, advise the Access Seeker in writing of the additional time required and the reasons why it is required. Without limiting the reasons why additional time may be required for assessment, the Access Provider may have to undertake additional survey, measurement and testing activities to complete the assessment of the New Interconnection Service Request. Within twenty (20) Working Days of the date of the considered response, the Access Seeker may initiate the relevant dispute resolution procedures in Annex F – Dispute Resolution in this Agreement.

Schedule 1 to Annex B: Template Letter of Application for Interconnection

[Company Letterhead]

[Insert Access Provider Contact Details]

Dear Sir,

Application for Interconnection

I am writing to apply to interconnect with the BTC Network, under the terms of the BTC Reference Access and Interconnection Offer dated [Insert Date of RAIO].

My application is attached.

Yours sincerely

[Insert Name]

[Insert Title]

[Insert Company Name]

[Insert Business Address and Registered Company Address]

cc URCA

Schedule 2 to Annex B: Application for Interconnection

Form of Access and Interconnection Agreement

Is acceptance of the Reference Access and Interconnection Offer pending negotiation of an individualised Interconnection agreement? Yes / No

Company Details

Company name
Registered company address
Designated contact person:
Name
Business Address
(if different from registered company address)
Contact telephone number
Fax number

Licence Details

Type of licence
Date of licence
Type of electronic communications Network and/or electronic communications service that may be
Provided

Interconnection Services Requested

List the interconnection services requested (based on the service specifications in the RAIO) or define the new interconnection services requested.

The date at which the services are required

List relevant provisioning dates requested.

Points of Interconnection and Capacity Requirements

List the Points of Interconnection at which interconnection is requested, and forecast capacity requirements at each Point of Interconnection if relevant. [SIP Interconnection, IP transport and session Requirements List the forecast capacity requirements across the SIP Interconnection.](#)

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Other relevant details

For example for initial interconnection and new PoI this may include details on:

Switch software used by Access Seeker and its interoperability with other software types.
Location of the Access Seeker's switch
Relevant number ranges within the National Numbering Plan
Etc.

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Annex C – Technical Specifications

C.1 Specifications

C.1.1 **General:** The Recommendations made by the International Telecommunication Union (ITU) for Common Channel Signalling System Number 7 (CCS 7) provide the framework for adherence to the standards contained therein. The Parties agree to use these Recommendations and the specifications endorsed by URCA wherever practical. Where these standards provide for alternatives, the alternatives will be those which are used by BTC.

C.1.2 Notwithstanding the above Recommendations, for Calls that are originated in one Network and terminated in another, the originating Network will be entitled to block backward signals that modify the originating tariff structure. Such backward signals will be discarded and the Call will be force released.

C.1.3 **Safety (Dangerous Voltages):** In order to protect personnel and equipment on both sides of the interface, it is necessary to provide protection against the transmission of dangerous voltages across the interface. For equipment which uses or generates excessive voltages, a barrier shall be provided to protect the interface from those voltages.

C.1.4 **Physical Interface:** The physical interface between the Networks shall be 120 ohm balanced termination.

C.1.5 **Electrical Interface (Input and Output):** The electrical interface shall conform to ITU-T Recommendation G.703 for twisted pair cable at 1.544Mbit/s (T1) links. The input impedance of 120 Ohm balanced is required. The output impedance is approximately 20 Ohms as specified in G.703. This is necessary to meet the required pulse shape masks.

C.1.6 **Attenuation:** The attenuation of the interconnecting cable (including any digital distribution frame or interconnecting equipment) shall not exceed 6dB at 1024 kHz.

C.1.7 **Interference:** Both input ports shall tolerate, without error, interference from a non-synchronous standard test signal (ITU-T Recommendation Q.151) at a level 18dB lower than the wanted signal.

C.1.8 **Multiplex Characteristics:** The multiplex structure shall be in accordance with ITU Recommendation G.733, and Recommendations G.704 and G.705 and Q.501 - Q.517 for operation involving digital exchanges. The Signalling Chapter 5 of Recommendation G.733 applies.

C.1.9 **Signalling Protocol:** The signalling protocol between the Networks will initially be based on CCS No 7 ISDN User Part (ISUP) as defined in the CCITT Blue Book Recommendations.

C.1.10 General CCS 7 Principles: The principle of minimum visibility in respect of the Destination Point Codes (DPCs) shall apply between the Parties. Only connection-oriented signalling shall initially be allowed between the Parties. The CCS 7 network shall only be implemented with associated mode of signalling. CRC4 will only be used end to end over links after mutual agreement between the Parties involved.

C.1.11 Wander and Jitter: Maximum jitter at output ports immediately preceding digital switching as per ITU-T Recommendation G.824 (1984) paragraph 2 shall apply. Jitter and wander tolerance at input ports will be as per ITU-T Recommendation G.823 (1984) for 1.544Mbit/s (T1) links on the Primary Digital Hierarchy (PDH) network and for links provided on copper cables with regenerators. It should be noted that the ports should be able to tolerate a frequency offset greater than 50ppm.

C.1.12 Time Slot Zero: Chapter 2 of Recommendation G.733 applies.

C.1.13 Fault Conditions and Consequent Actions: The Parties shall implement the provisions of Recommendations G.733, Q.501 to Q.517.

C.1.14 Channel Time Slot Encoding: The 64 Kbit/s channel time slots comprising the 1.544 Kbit/s stream shall carry "Mu" law encoded information as defined in Recommendation G.711.

C.1.15 The idle channel bit pattern in both directions shall be 01010100 (MSB at left hand end) in accordance with paragraph 2.4.6 of Recommendation Q.503 when the interface is between digital exchanges.

C.1.16 Synchronisation: The Parties shall agree the methods and standards of synchronisation.

C.2 CCS 7 Signalling links

C.2.1 Signalling link pairs in a combined link set will be operated in a load share mode, with no single signalling link operated at greater than 40% of its theoretical message capacity under normal conditions and 80% under overload conditions. A 64 Kbit/s signalling link will be engineered to offer, in each direction, a normal traffic load of up to 96 ISUP messages per second for trunk signalling and an overload traffic load of up to 192 ISUP messages assuming an average message length of 25 octets shall apply.

C.2.2 It will be up to the discretion of either Party as to whether en block or overlap signalling is used for calls originating on that Party's Network.

SIP Interconnection

C.2.2.0 General Interconnection

C.2.2.1 BTC will entertain an SIP Interconnection. Detailed specifications to be determined through a joint Network Planning Committee.

C.2.2.2 Initial guidelines regarding the SIP interconnection are provided in the sections below.

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C.3 SIP signalling

C.3.1 SIP signalling will be used for SIP interconnection. Other signalling types (H.323, etc.) are not supported.

C.3.2 The following signalling specificities are supported:

- T.38 fax and G.711 fax are supported
- RFC2833 is supported, but not the INFO message type
- “To:” fields support prefixes, but only one global numeric prefix per IP address (non-numeric chars, e.g., # sign are unsupported)
- The CLI feature is provided through the P-Asserted-Identity header (RFC 3325) and calling number needs to be in E.164 format (e.g. preceded by a ‘+’ sign). CLI in “From:” field is not supported and will be dropped.
- Full and compact headers are supported

C.3.4 SIP Media IP ranges and SIP signalling IP addresses will be provided by BTC

C.4 IPSEC configuration

C.4.1 IP interconnect will require the use of IPsec, SRTP or TLS for the security of underlying layers.

C.4.2 The following guidelines are to be followed for IPsec implementation:

- Tunnel mode only is supported for IPsec. Transparent mode is not supported.
- 4 types of transform sets are supported: ‘esp-3des-md5’, ‘esp-3des-sha1’, ‘esp-aes128-md5’, ‘esp-aes128-sha1’. ‘esp-3des-md5’ is the preferred transform set.
- ‘Main Mode’ is the only method supported for IKE negotiation. ‘Aggressive Mode’ is not supported. □ Perfect Forward Secrecy (PFS) shall be used in ‘group 2’.
- Perfect Forward Secrecy (PFS) shall be used in ‘group 2’

C.4.3 Only SIP signalling packets will be encrypted. RTP media may flow outside the tunnel.

C.4.4 BTC IPsec devices have policy-based routing enabled.

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C.3 Joining Circuits

C.3.1 The provision of Joining Circuits shall take into consideration the need for diversity and security in traffic routes and signalling links. For reliability signalling links must be provisioned over physically diverse transmission paths and/or equipment where such exists.

C.3.2 Unless otherwise agreed between the Parties, the minimum interconnection capacity for interconnection by the Access Seeker to one of the Access Provider's POI is two 1.5 Mbps (T1) links plus two SS7 signalling circuits. A Joining Circuit may comprise different types of circuit groups. The circuits in each circuit group may convey Traffic in a specific direction (uni-directional) or be configured to operate in both directions (bi-directional).

C.3.3 The transmission interconnection shall interface at the 1.5 Mbps level and comply with ITU-T Rec G.703.

C.3.4 The Calling Party Number and Redirecting Number, if any, shall be conveyed for all calls across the Network interconnection without manipulation.

C.3.5 The CLI must be passed to the interconnecting Network without manipulation.

C.3.6 The Parties shall comply with the interconnection testing procedures specified in Schedule 4 – Interconnection Testing Procedures. Testing must be successfully completed for each Joining Circuit or signalling link before it is commissioned.

C.3.7 All 1.5 Mbps systems carrying CCS 7 signalling links between the Networks shall be clearly marked in the switching and transmission equipment rooms so as to prevent any unnecessary maintenance activities. All circuit conditioning equipment such as PADS and echo cancellers must be removed from the signalling links.

C.3.8 Both Parties shall load balance the signalling and traffic they initiate across the joining circuits according to the requirements of the other Party. Both Parties shall notify the other Party of any changes to the load balancing requirements 30 Calendar Days in advance of the commencement date.

C.4 Numbering

C.4.1 Each Party shall ensure that each Call handed over to it by the other Party at a Point of Interconnection shall be routed to the number of the National Numbering Plan which is associated with the Call and which indicates the destination of the Call.

C.4.2 Each Party shall give the other at least four weeks notice of any new numbering ranges that it proposes to implement or of any changes in its numbering structure that will necessitate modifications in the other Party's Network. Each Party shall then implement and test the modifications before the end of the four week notice period.

C.4.3 If URCA decides to modify the National Numbering Plan, each Party shall cooperate in the early implementation of the changes and bear the costs associated with any changes to its own network required as a result of such a decision. The Party subject to such modifications will inform the other Party in writing as soon as it becomes aware of such a decision of URCA so that the other Party can carry out the necessary changes to its network.

C.4.4 **Calls between the Networks:** The POI will forward the numbers in the formats specified in the National Numbering Plan. All digits will be passed across the interface.
The SIP Interconnect will forward the numbers in the formats specified in the National Numbering Plan. All digits will be passed across the interface

C.5 Calling Line Identification

C.5.1 The Access Seeker undertakes to provide the Nature of Address in respect of all of its Calls, and the Calling Line Identification Presentation (CLIP) for all its Calls where this is technically feasible. If required by the Access Provider, the Access Seeker shall demonstrate why it is not technically feasible to provide the CLIP and Nature of Address.

C.5.2 For the avoidance of doubt, if a CLI and Nature of Address is provided to the Access Seeker by a third party or a Caller on the network of the Access Seeker, the CLI and Nature of Address shall in all circumstances be provided to the Access Provider by the Access Seeker. In cases where no CLI and/or Nature of Address can be made available it is the responsibility of the Access Seeker to correctly identify the type of traffic presented at the POI and communicate this to the Access Provider in order to ensure accurate billing as per Annex E – Billing Processes and Annex G – Price List. A failure to do so will constitute a breach of this Agreement under Clause 18.1.

C.5.3. Each Party undertakes to ensure that, except for calls to the Emergency Services, the Calling Line Identification Restriction (CLIR) marking of Calls is respected at all times and that the numbers marked with CLIR shall not be presented to the called end-user or a third party where this is required by a Customer or by law.

C.5.4 Neither Party shall amend the CLIP, if presented to it, of any Call originating from a domestic or international Caller and passing over a Joining Circuit.

C.5.5 The Nature of Address shall conform to the standards produced for SS7 signalling by ANSI, and use the following digits:

- 1 Local call
- 2 National toll call or
- 3 National toll call
- 4 International call

C.5.6 If a Party can demonstrate that the other Party is intentionally removing the CLI or Nature of Address from any Call originating from a domestic or international Caller and passing over a Joining Circuit, it may, after allowing the other Party an opportunity to respond to its evidence, within three (3) Working Days of submitting evidence of the removal of the CLI or Nature of Address to both the other Party and URCA, block all Calls without a CLI being sent to it by the other Party.

Schedule 1 to Annex C: Signaling specifications

The Parties' signalling systems should comply with the following documents:

- "Stream Control Transmission Protocol," RFC 2960, October 2000.
- "SIP: Session Initiation Protocol", RFC 3261, June 2002.
- "SDP: Session Description Protocol", RFC 2327, April 1998.
- "An Offer/Answer Model with Session Description Protocol (SDP)," RFC 3264, June 2002.
- "Reliability of Provisional Responses in SIP", RFC 3262, June 2002.
- "Integration of Resource Management and SIP", Internet Draft ietf-sip-manyfolks-resource-07.txt, April 2002.
- "The tel URI for Telephone Calls," Internet Draft draft-antti-rfc2806bis-05.txt, June 2002.
- "Extensions to the "tel" and "fax" URLs to Support Number Portability and Freephone Service," Internet Draft draft-yu-tel-url-04.txt, March 2002.
- "SIP Call Control - Transfer", Internet Draft draft-ietf-sip-cc-transfer-05.txt, January 2002.
- "Best Current Practices for Third Party Call Control in the Session Initiation Protocol," Internet Draft draft-ietf-sipping-3pcc-02.txt, June 2002.
- "Network Application Interaction Requirements," Internet Draft draft-culpepper-sipping-app-interact-reqs-01.txt, May 2002.
- "A Framework for Stimulus Signalling in SIP Using Markup", Internet Draft draft-rosenberg-sipping-markup-00.txt, April 2002.
- "RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals," RFC 2833, May 2000
- "The SIP INFO Method", RFC 2976, October 2000.
- "ISUP to SIP Mapping," Internet Draft draft-ietf-sipping-isup-02 May 2002.
- "ITU and T1S1 PSTN-SIP Interworking, ITU Q.1912.SIP
- "MIME media types for ISUP and QSIG Objects", RFC 3204, December 2001.
- "Carrying ISUP in SIP Messages (SIP-ISUP-ANNEX)," Internet Draft draft-miller-sip-isup-annex-00, 2002.
- " SIP-H.323 Interworking Requirements, "Internet Draft draft-agrawal-sip-h323-interworking-reqs-03.doc, January 2002.
- "SIP-H.323 Interworking," Internet Draft draft-agrawal-sip-h323-interworking-01, July 2001.
- "SIP Extensions for Network-Asserted Caller Identity and Privacy within Trusted Networks", draft-ietf-sip-privacy-04.txt, Standards Track, February 2002.
- "SIP Extensions for Media Authorization", Internet Draft draft-ietf-sip-call-auth-06.txt, May 2002.

ISUP signalling information should comply with: Telcordia GR394 and Telcordia GR317 (Mutual Compensation trunk application) and GR905, Common Channel Signalling Network Interface Specification (CCSNIS).

Schedule 2 to Annex C: Network specifications

C-2.1 *Physical and electrical interface*

C-2.1.1 **Output ports:** The specifications at the output of BTC's T1 Traffic ports (G.703 compliant) are as follows:

Bit rate 1.544 Mbit/s +/- 130 ppm ITU-T G703
Line code HDB3 ITU-T G703

Overvoltage protection: refer to ITU-T K41
Load Impedance (Note 1) 120 Ohms resistive ITU-T G703
Mask of the pulse ITU-T G.703
Maximum peak to peak jitter refer to clause 5/ G.824

C-2.1.2 Where a Party uses a load impedance of 120 Ohms resistive, the Party will provide the matching equipment at its cost.

C-2.1.3 **Input ports:** The digital signal presented at the input port shall be as defined above but modified by the characteristic of the interconnecting pair. The attenuation of this pair shall be assumed to follow a \sqrt{f} law and the loss at a frequency of 1024 kHz shall be in the range 0 to 6 dB. This attenuation should take into account any losses incurred by the presence of a digital distribution frame between the equipment. For the jitter to be tolerated at the input port, refer to clause 7/G.824.

C-2.1.4 The return loss at the input port should have the following provisional minimum values:

Table C-2.1: Return losses

Frequency range (kHz)	Loss (dB)
4 - 13	12
13 - 256	18
256 - 384	14

C-2.1.5 **Grounding of outer conductor or screen:** The outer conductor of the coaxial pair or the screen of the symmetrical pair shall be connected to the bonding network both at the input port and the output port.

C-2.1.6 The cable routing leaving the system block shall be designed in accordance with Recommendation K.27.

C-2.1.7 The direct connection of the outer conductors of co-axial cables to the bonding network at the transmit and receive interfaces may, because of differences in earth potential at each end of the cable, result in unwanted current flowing in the outer conductor, through connectors and through the receiver input circuitry. This may result in errors or even permanent damage. To prevent this problem, DC isolation may be introduced between the outer conductor and bonding network at the receive interface.

The method of DC isolation will not compromise the EMC compliance of the equipment and the overall installation. This provision is unnecessary where the cable conforms to BT3002 type.

C-2.1.8 Over voltage and lightning protection: This is only required if the load impedance is 120 Ohms resistive. The ITU-T recommendations K27, K35, K40 and K41 will be applied. Connection of the T1 interfaces using improper overvoltage and lightning protection measures is not permitted. Common earthing for both BTC and Other Licensed Operator's equipment with T1 interfaces is mandatory. Each Party is responsible for its own earthing.

C-2.1.9 Jitter and wander on the T1 traffic interface:

Network limits for Output Jitter at T1 traffic interface (ITU-T G.824 compliant) are as follows:

Table C-2.2: Maximum permissible jitter at traffic interfaces

Interface	Measurement bandwidth	Peak to peak amplitude
	-3 dB frequencies (Hz)	Uipp
1.544 Mbps	10k - 40k	5.0
	8k - 40k	0.1

Nb: at 1.544 MBPS 1 Ui = 647 ns

C-2.1.10 Network limits for Output Wander at T1 traffic interface: The maximum level of wander that may exist at a 1.544 Mbit/s network interface (ITU-T G.824 compliant), expressed in MRTIE, shall not exceed the limit given in Table C-2.3.

Table C-2.3: 1.544 Mbit/s interface output wander limit

Observation interval	MRTIE requirement
τ sec	μ s
$0.1 < \tau \leq 0.195$	7700τ
$0.195 < \tau \leq 5200$	$1400 + 230 \tau 0.5$
$5200 < \tau$	1800

C-2.2 Transmission

C-2.2.1 In order to ensure their compatibility with transmission equipment and the observance of quality requirements, the Parties' transmission systems will follow the following recommendations:

- CDRs should be converted to AMA format as specified in GR-508, GR-1100, GR-1298 and GR-1343
- Any LNP capable entity should be compliant with ANSI TRQ.02 and TRQ.03
- Inter-operability with BTC's TANDEM/500 switch is necessary
- Circuit network interfaces should support a SS7 NI interface, as specified in GR-905
- The 1.544 Mb/s interface shall be an electrical DS1 interface conforming to ANSI T1.102-1993, and must comply with Bellcore GR303-CORE Issue 1 Rev 3 1997.

- The 45 Mb/s interface shall be a channelized electrical DS3 interface conforming to ANSI T1.102-1993.
- The 51.840 Mb/s interface shall be an electrical STS1 TDM interface conforming to ANSI T1.105-1995.
- The IP network interface must comply with capabilities in RFC 2475, “An Architecture for Differentiated Services”.

C-2.3 TDM

C-2.3.1 If the Parties agree to use time division multiplexing (TDM), they shall comply with the following standards:

- ITU-T Recommendation G.111 Loudness Ratings in an International Connection
- ITU-T Recommendation G.113 Transmission Impairments
- ITU-T Recommendation G.121 Loudness Ratings of National Systems
- ITU-T Recommendation G.122 Influence of National Systems of Stability, Talker Echo and Listener Echo in International Connections
- ITU Recommendation G.123 Circuit Noise in National Circuits
- ITU-T Recommendation G.131 Stability and Echo
- ITU-T Recommendation G.151 General Performance Objectives Applicable to all Modern International and National Extension Circuits
- ITU-T Recommendation G.165 Echo Cancellers
- ITU-T Recommendation G.473 Interconnect of a Maritime Mobile Satellite System with the International Automatic Switched Telephone Service Transmission Aspects
- ITU-T Recommendation G.703 Physical/electrical characteristics of hierarchical digital interfaces
- ITU-T Recommendation G.704 Synchronous frame structures used at 1544, 6312, 2048, 8448 and 44 736 Kbit/s hierarchical levels.
- ITU-T Recommendation G.706 Frame Alignment and Cyclic Redundancy Check (CRC) Procedures Relating to Basic Frame Structures Defined in Rec. G704
- ITU-T Recommendation G.707 Network node interface for the synchronous digital hierarchy (SDH)
- ITU-T Recommendation G.711 Pulse Code Modulation (PCM) of Voice Frequencies
- ITU-T Recommendation G.712 Performance Characteristics of PCM Channels between 4- wire Interfaces at Voice Frequencies
- ITU-T Recommendation G.783 Characteristics of synchronous digital hierarchy (SDH) equipment functional blocks
- ITU-T Recommendation G.784 Synchronous Digital Hierarchy (SDH) management
- ITU-T Recommendation G.810 Definitions and terminology for synchronization networks
- ITU-T Recommendation G.811 Timing requirements of primary reference clocks
- ITU-T Recommendation G.812 Timing requirements of slave clocks suitable for use as node in synchronization networks
- ITU-T Recommendation G.813 Timing characteristics of SDH equipment slave

- clocks
- ITU-T Recommendation G.821 Error performance of an international digital connect
 - ITU-T Recommendation G.822 Controlled slip rate objectives on an international digital connection
 - ITU-T Recommendation G.824 The control of jitter and wander within digital networks which are based on the 1544 Kbit/s hierarchy
 - ITU-T Recommendation G.826 Error performance parameters and objectives for international, constant bit rate digital paths at or above the primary rate
 - ITU-T Recommendation G.841 Types and characteristics of SDH network protection architectures
 - ITU-T Recommendation G.921 Digital Sections Based on the 2048kbit/s Hierarchy
 - ITU-T Recommendation G.957 Optical interfaces for equipment and systems relating to synchronous digital hierarchy
 - ITU-T Recommendation G.958 Digital line systems based on the synchronous digital hierarchy for use on optical fibre cables
 - ITU-T Recommendation K.27 Bonding configurations and earthing inside a telecommunication building
 - ITU-T Recommendation K.35 Bonding Configurations And Earthing At Remote Electronic Sites
 - ITU-T Recommendation K.40 Protection against LEMP in telecommunications centres
 - ITU-T Recommendation K.41 Resistibility of internal interfaces of telecommunication centres to surge overvoltages
 - ITU-T Recommendation O.151 Error Performance Measuring Equipment for Digital Systems at the Primary Bit Rate and above
 - ITU-T Recommendations O.152 Timing Jitter Measuring Equipment for Digital Systems
 - ITU-T Recommendation P.11 Effect of Transmission Impairments
 - ITU-T Recommendation P.16 Subjective effects of Direct Crosstalk; Thresholds of Audibility and Intelligibility
 - ITU-T Recommendation P.76 Determination of Loudness rating; Fundamental principles
 - ITU-T Recommendation Q.522 Section 2.12 Bit Patterns Generated by the Exchange in Idle Channel Time Slots
 - ITU-T Recommendation Q.551 Transmission Characteristics of Digital Exchanges
 - ITU-T Recommendation Q.554 Transmission Characteristics at Digital Interfaces of a Digital Exchange
 - ITU-T Recommendation M 2110 Bringing-into-service of international PDH paths, sections and transmission systems and SDH paths and multiplex sections.

Schedule 3 to Annex C: SIP Interconnect specifications

The Parties' systems should comply with the following documents:

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Basic Call Establishment

• Session establishment – MUST support RFC 4566 "Session Description Protocol" – MUST support RFC 3264 "Offer/Answer Model with SDP"

– Placing media on hold: "a=inactive" or "a=sendonly"

• Ringback Tone vs. Early Media

– 180 w/o SDP means apply local ringback tone

– 183 with SDP means render RTP received from remote media endpoint described in SDP

• Caller ID with Privacy (RFC 3323 & 3325)

– Calling name & number delivered in P-Asserted-Identity

– Privacy requested using Privacy

Call Forwarding

– Procedures to remain in signaling path of forwarded call

– Call-forwarding loop detection procedures • Call Transfer using REFER/Replaces – MUST support RFC3515 "The SIP Refer Method"

– MUST support RFC3891 "SIP Replaces Header"

– MUST support RFC3265 "SIP-Specific Event Notification"

• Call Transfer using 3PCC (INVITE/reINVITE)

– RECOMMEND support of RFC 3725 "Best Current Practices for 3PCC"

Auto Recall/Callback

– MUST support RFC 4235 "An INVITE-Initiated Dialog Event Package for SIP"

• Used to detect when target user becomes available

– INVITE to target user MUST include Call-Info header field with "purpose=answer if not busy"

• Used to resolve feature interactions e.g., call-forward-busy

Schedule 3 to Annex C: Interconnection testing

C-3.1 General

C-3.1.1 The following tests will be performed each time a new Point of Interconnection or the provision of new Joining Circuits to additional switches are established or additional capacity added to an existing Joining Circuit.

C-3.1.2 The timetables for testing will be as set out in Annex B, clause B7.5 – B7.6. If any of the tests below do not meet the performance objectives set out below or as in the relevant Recommendation, the Parties shall meet as soon as possible to identify and resolve the problem, and to initiate new tests.

C-3.2 Circuit tests

C-3.2.1 The following tests will be performed on digital 1.544 Mbit/s circuits that are dynamic and out of service:

C-3.2.2 **Error performance:** Error Performance measurements according to G.826 ITU-T will be made on an end to end basis for all T1 circuits provided over transmission systems to confirm that the circuit complies with ITU-T Recommendations: G826. The End-to-end error performance objectives for a 27 500 km international digital Hypothetical Reference Path (HRP) or for a HRP at or above the primary rate are shown below.

Table C-3.1: Circuit test objectives

Test	Objective
Rate	1.544 Mbps
Bits/block	1544
Errored second ratio (ESR)	0.04
Severely errored second ratio (SERS)	0.002
Background block error ratio (BBER)	2×10^{-4}

C-3.2.3 The allocation for the error performance objectives to the national portion of the end-to end path will be done accordingly to G.826 Recommendation. The duration of the above test is at least twenty-four (24) consecutive hours.

C-3.2.4 **Interface tests:** The following frequency measurements shall be carried out on the T1 interfaces complying with ITU Recommendation G.703:

Table C-3.2: Interface test objectives

Frequency Measurement	Objective
T1 Frequency Measurement	1.544 MHz +/- 130 ppm
T1 Frequency Offset Tolerance	1.544 Mbit/s +/- 130 ppm (BEC=0 errors)

C-3.2.5 **Electrical tests:** The pulse shape at the output port shall be compliant with ITU-T G.703 Mask

C-3.2.6. **Jitter and Wander Measurements:** The instrumentation for jitter and wander measurements will be carried out in accordance with ITU-T Recommendations O.171 and O.172. The output jitter for T1 interface, the output wander at T1 traffic interface, and the input jitter and wander tolerance of the T1 traffic interface should all be compliant with ITU-T G824.

C-3.3 Call completion tests

C-3.3.1 **Signalling ANSI SS7 tests:** All the following tests will be performed with test calls in both directions across the Parties' networks, according to the Services provided by the Parties to each other. The following tests will be performed for all types of digital switches and equipment which are operated by the Parties and which are to be used for the purposes of Interconnection between the Parties. The requirements arising out of these tests vis-à-vis the other Party are without prejudice to the principle that the RAIO sets out BTC's obligations relating to the service mandated herewith and does not impose reciprocal obligations on the other Party.

C-3.3.2 The following tests will be used on the SS7 signalling channels:

- Transmission network performance tests (Physical layer, Level 1: G.826)
- MTP signalling data link tests (Level 2: Q.781)
- MTP signalling network management tests (Level 3: Q.782)
- ANSI compatibility tests: Q.784.1
- ANSI end to end tests: Q.788
- SCCP tests (Q. 786, further on when SCCP services will be operational and agreed)
- TCAP tests (Q. 787, further on when TCAP services will be operational and agreed)

C-3.3.3 **Call Routing:** The correct call routing configuration of all digital Switches will be checked by performing relevant test calls, as described below:

- Calls originated by the Other Licensed Operator and terminating on BTC's Network for all Call Services detailed in this Agreement through the respective Interconnected Switches.
- Calls from BTC to Other Licensed Operator and vice versa, in order to check the validity of the calling number at the terminating point according to the National Numbering Plan.

C-3.3.4 **Charging Tests:** In order to ensure accurate charging of the Call Services provided, according to this Agreement the following tests will be performed, except where additional capacity is being added to an existing route:

- For all Interconnection call types required at the particular Point of Interconnection the transmission and reception of the charging parameters will be checked bilaterally.

- The error-free charging registration in files (Volume of Calls and total duration in minutes) per Call Service for all applicable charging periods
- The comparison of charging files between both Parties in order to ensure the matching of records
- The accuracy of the information provided by each Party regarding the total volume of interconnection traffic.

C-3.3.5 **Confidence Testing:** The confidence tests will start after the common technical test for Interconnection has been completed. During one month starting with the moment the Interconnection becomes operational, the Parties will monitor the signalling Traffic and the Call Services Traffic in order to ensure that the standards in this Annex are being met.

C-3.3.6 For SS7 the Parties will verify that the Signals are sent only for the agreed destinations and for the agreed Services and that they meet the resilience criteria.

Schedule 4 to Annex C: Points of interconnection

There are two Points of Interconnection available in the BTC network. Key information about both is summarised below.

Table C-4.1: Points of interconnection

	Grand Bahama	New Providence
Name	Grand Bahama GSX	New Providence GSX
Address of POI	McKenzie Street, Freeport	Poinciana Drive
Postal address of POI	PO Box FP-42483 Freeport	PO Box N-3048 Nassau
Switch model and manufacturer	Sonus PSX/GSX Soft Switch	Sonus PSX/GSX Soft Switch
Signalling transfer point code	1-32-30	1-32-30
Terminating number range used by switch	346, 348, 349, 357, 359, 350, 351, 352, 353, 373, 375, 441, 442, 443, 457, 477, 481, 533, 553, 557, 559	All other number ranges
Switch capacity available (number of T1s)	336	336
Scope for physical co-location	Yes	Yes

Annex D – Operations and Maintenance

D.1 Management of interconnection

D.1.1 The Parties will nominate an Interconnection Manager as the main point of contact within their organisations for each other. The prime purpose of the Interconnection Manager will be to ensure that communications between the Parties is effective. An Interconnection Manager may request a meeting with the other Interconnection Manager to discuss any issue, and the Interconnection Managers will meet within five (5) Working Days of the request being made.

D.1.2 The Parties will establish a Joint Working Group to discuss and agree on technical, operational, planning and service aspects of the Interconnection. The Joint Working Group will consist of equal numbers of representatives from each Party. A Party shall nominate no more than four representatives. The names of each representative will be listed in Schedule 1 – Contact details, and may be amended in accordance with Clause 21.9. Each Party will nominate one of its representatives as an alternate chairman.

D.1.3 The Joint Working Group may consider the following matters:

- the Network Plan, plans for Network Alterations or new developments in the Network of either Party
- requirements for new Points of Interconnection and Joining Circuits and potential timing of delivery
- traffic levels and congestion problems
- service quality
- future capacity requirements;
- faults and outages during the period since the previous meeting;
- billing processes and issues;
- planned maintenance
- special events, Mass Call Events and other high traffic generators
- any other matters raised by either Party

D.1.4 The Joint Working Group will receive and consider statistical reports on the performance of Joining Circuits and the repair of any faults reported by the Parties. The format of these reports will be as shown in the samples in Schedule 2 to this Annex D, unless otherwise agreed between the Parties.

D.1.5 The Joint Working Group shall meet whenever requested by either Party, and in any case it will meet no less than every six months, unless the Parties agree otherwise.

D.1.6 The chairmanship of the Joint Working Group will alternate between the Parties, with the first meeting being called by the Bahamas Telecommunications Company. The

chairman of the meeting will be responsible for setting a date and location for the meeting, and for circulating an agenda five Working Days in advance of the meeting.

D.2 Traffic routing principles

D.2.1 As a general principle, each Party shall be responsible for routing traffic in the most practical and efficient manner, having regard to the Network configuration and current Network conditions such as congestion and known faults.

D.2.2 Each Party will make reasonable effort to ensure that all calls to the Network of the other Party are successfully routed, using overflows to alternative routing if necessary and possible.

D.2.3 Traffic may be handed over by the Access Seeker to the Access Provider at any Point of Interconnection. The Access Provider shall inform the Access Seeker of the closest POI for call termination for each geographic numbering range (Schedule 4 of Annex C).

D.2.4 For the avoidance of doubt, unless otherwise agreed between the Parties, the Access Seeker may hand over traffic at any POI it chooses. The Access Seeker shall notify the Access Provider of the POI it intends to use for each type of traffic, and shall only change such handover POI after it has provided written notice to the Access Provider of not less than two (2) calendar months.

D.2.5 **Abnormal Conditions:** The re-routing of traffic under abnormal conditions will be according to the alternate routing indicated in the routing tables supplied by the Parties. Each Party will inform the other Party of such re-routing undertaken in the event of severance of routes. When only a portion of a route has failed, traffic should continue to be offered to the remaining portion of that route before overflowing to latter choice routes. In the event of the available capacity on the designated alternative routes being insufficient to handle all the overflow traffic, then each Party must contact the other to seek agreement to route the remainder of the traffic through its own network to an alternative POI. The predefined prescribed arrangements and details of the information to be handed over in such an event will be agreed between the Parties. In the event that the predefined routing arrangements for abnormal conditions cannot be implemented due to exceptional circumstances details of the alternative arrangements that are to be implemented in their place must be supplied.

D.3 Handling congestion and unplanned network outages

D.3.1 In the event of congestion occurring on one or more of the interconnection links, the originator of the traffic may take appropriate action as required to re-route the traffic in order to reduce the effect of the congestion.

D.3.2 If either Party is aware of congestion occurring, they shall notify the other Party of:

- a) the existence of the congestion;
- b) the actions being taken by the Notifying Operator to reduce the impact of the congestion; and
- c) the outcome of those actions.

D.3.3 Both Parties agree to work together in good faith to resolve congestion issues by planning as necessary further interconnection capacity or amendments to traffic routing plans in an expedient manner.

D.3.4 For the avoidance of doubt, the Access Seeker is responsible for the ordering of any additional services required in order to ensure that sufficient capacity is available to minimise on-going congestion problems on Interconnection Circuits.

D.3.5 In the event of an unplanned Network outage in the Access Provider's Network, it is the responsibility of the Access Provider to use its reasonable endeavours to re-route the traffic or otherwise mitigate the impact of the outage on the Access Seeker. The Access Provider shall notify the other Party of

- a) the existence of the Network outage;
- b) the action being taken by the Access Provider to reduce the impact of the Network outage; and
- c) the outcome of those actions.

D.4 Mass call events

D.4.1 A Mass Call Event is defined as the planned occurrence of an unusually high volume of calls to a specific destination (number or group of numbers). A typical example of a Mass Call Event would be a media Customer soliciting calls in bulk from its mass audience.

D.4.2 Both Parties will work together with each other and with URCA to have a special access code or number range that may be made available to Customers for the use of Mass Call Events. These codes or number ranges shall be compliant with the National Numbering Plan.

D.4.3 Either Party with knowledge of a user planning a Mass Call Event will provide the other Party with reasonable advance notice, not less than 5 Working Days, and sufficient information for the other Party to take appropriate action prior to the event.

D.4.4 Either Party may take appropriate action to manage the Mass Call Event traffic or other periods of unusually high traffic loads within their Network to manage the impact this has on other traffic within the Network.

D.5 Malicious call tracing

D.5.1 Any malicious call tracing must be initiated by Royal Bahamas Police Force or an authority empowered to do so by the laws of the Commonwealth of The Bahamas, and tracing that uses the networks of both Parties must be approved by the appropriate person

within each Party. Once these approvals have been obtained, a Party shall co-ordinate the call tracing with the NOC of the other Party. The other Party shall give priority to the request.

D.6 Customer fault reporting

D.6.1 Each Party shall be responsible for examining the operations of its own Networks before reporting the existence of faults to the other Party.

D.6.2 **Fault reporting systems:** Each Party shall establish and maintain a fault reporting service that allows Customers who are directly connected to the Network of that Party and to whom that Party supplies services to report faults relating to any Network or service.

D.6.3 **Customer notification:** Each Party will advise all of its directly connected Customers to report all faults to its fault reporting service, as described in Clause D.6.2.

D.6.4 **Non-discriminatory fault reporting and identification:** Each Party shall perform fault reporting and identification on a non-discriminatory basis.

D.7 Fault management and service restoration responsibility

D.7.1 **Network fault responsibility:** The Party in whose Network the fault occurs is responsible for responding to the fault report, attending the fault (if appropriate), rectifying the fault and restoring services.

D.7.2 **Transmission service faults:** The Party that supplies transmission services is responsible for maintaining and repairing that transmission service, notwithstanding that the transmission service may be used in the other Party's Network.

D.7.3 **Major inter-working faults:** If a major fault occurs affecting a communication that crosses or is to cross both Parties' Networks, initial responsibility for identifying the fault rests with the Party which first becomes aware of the fault.

D.7.4 **Faults affecting other Networks or Equipment:** If a Party identifies a fault occurring in its Network or with its Network facilities which may have an adverse effect on the other Party's Network, Network facilities, Network services or Equipment, the first Party shall promptly inform the other Party of:

- a) the existence of the fault;
- b) the actions being taken by the first-mentioned Party to restore service and to further identify and rectify the fault; and
- c) the outcome of those actions.

D.7.5 Each Party is responsible for establishing and maintaining a fault reporting service at its own cost irrespective of the location of the fault.

D.7.6 The Access Provider will, at its sole discretion, classify the fault as either Service Affecting fault or Service Interrupting fault, and will use its best endeavours to repair the fault in line with the timescales set out in Annex H – Quality of Service.

D.7.7 **Fault priority:** Each Party shall give priority to faults that:

- a) involve a critical alarm in an exchange
- b) have the highest service loss impact in terms of the number of Customers affected
- c) have been reported on previous occasions and have recurred.

D.7.8 **Non-discrimination:** Each Party shall rectify faults on a non-discriminatory basis.

D.7.9 Each Party will use its best endeavours to meet the timescales set out in Tables H.4 and H.6 of Annex H – Quality of Service Standards for fault notification and fault repairs.

D.7.10 **Registration and numbering:** All faults affecting the provision of Interconnection Services shall be registered and given a unique identification number to assist the Parties in monitoring fault response and rectification. The registration numbers used by each Party shall be available to the other Party to minimise confusion in the fault response and fault recognition.

D.7.11 If a Party notifies the other Party of a fault in the other Party's Network (including the Joining Circuits for which it is responsible), and the fault notice is subsequently found to be erroneous, the first Party shall be liable for any costs incurred by the other Party as a result of the erroneous information. This Clause shall not apply if the first Party can demonstrate to the satisfaction of the other Party that the erroneous fault notice was reasonably justified at the time it was issued. In the event of a disagreement over the reasonableness or otherwise of the erroneous fault notice, either Party may invoke the dispute procedure set out in Annex F.

D.8 Fault handling and rectification procedures

D.8.1 **Network Operations Centre (NOC):** Each Party shall establish one NOC each to which all factors relevant to the proper functioning of the Interconnection (generally of a technical nature) are to be reported. The NOC should be staffed on a 24-hour basis and equipped with necessary infrastructure to facilitate efficient communication. Each Party will be responsible for processing reported faults using its own procedures. Any inter-service assistance required shall be requested through the NOC. Each NOC is obliged to offer its full assistance for rectification of Interconnection faults. Each NOC will be the traffic-controlling Party for the circuit on which it loads outgoing traffic. NOC contact telephone numbers are included in Schedule 1 – Contact details, which will be updated by the NOC s as and when changes occur.

D.8.2 **Unplanned outages:** Upon detection of an unplanned outage, relevant NOCs must be notified. At the time of notification, the outage could have ceased to exist or could still be persisting. In cases where the outage has ceased to exist, the NOCs will note

the occurrence, duration and details of the failure. Immediate action must be taken to localise the fault causing the failure (and consequently identify which Party is responsible for clearing the fault where this is unclear at first) in cases where the outage persists. Relevant NOCs must be informed every 15 minutes for Service Affecting Faults and every three hours for other faults, or at mutually agreed upon intervals, thereafter by the responsible Party of the progress of the repair until restoration of full service whereupon the NOC will note the outage duration and details of the failure and inform the other Party of the rectification of the fault.

D.8.3 Planned outages: Planned outages must be kept to an absolute minimum and should not be carried out during busy traffic times. The Parties shall endeavour to limit such planned outages to the hours between 11.00 pm to 6.00am. The Party planning such an outage must inform the other affected NOC(s) 10 Working Days in advance (by mutual agreement this timescale can be reduced). If the planned outage does not directly affect the other Party, its NOC should be informed of the planned time of the outage. During the planned outage, the responsible Party must keep the other NOCs informed at regular intervals with the progress until full restoration of service whereupon the NOCs will note the outage duration. If the items are not restored to full service within the expected duration, the outage will be regarded as an unplanned outage occasioned by a planned outage and the procedure in Clause D.8.2 above for dealing with unplanned outages will be followed.

D.8.4 Fault history: Each Party shall maintain records, preferably electronic, containing details of all faults and the corresponding restoration times which were handled between it and the other NOCs for a running twelve month period. These records should be used to assess the fault performance of the Interconnection.

D.8.5 Escalation process: The Parties will follow the escalation process set out in Table D.1 for faults that are not cleared within the timescales given in Annex H - Quality of Service, so that the problem can be drawn to the attention of more senior management.

Table D.1: BTC fault escalation process

Severity level	Definition	Escalation listing
SL1 (Critical alarm)	Major portion of network or application is down	1. Fifteen (15) minutes from fault detection, escalation to NNOC Manager
	NNOC is unable to resolve in timescale provided	2. After thirty (30) minutes of no response or resolution, escalation to the NNOC Senior Manager
	No workaround available	3. After sixty (60) minutes of no response or resolution, escalation to the VP Network Services
SL2 (Major alarm)	Majority of network is down	1. Thirty (30) minutes from fault detection, escalation to NNOC Manager
	NNOC is unable to resolve in timescale provided	2. After sixty (60) minutes of no response or resolution, escalation to the NNOC Senior Manager
	Has critical impact, but not to extent of SL1	3. After three (3) hours of no response or resolution, escalation to the VP Network Services

Note: Appropriate contacts are listed in Schedule 1 – Contact points

D.9. Maintenance procedures

D.9.1 It is accepted that certain scheduled (preventive) and unscheduled maintenance actions will be carried out by the Parties on the items comprising the Interconnection. Where such actions could affect the proper functioning of the Interconnection, e.g., working on critical, centralised equipment, NOCs should be informed accordingly as early as possible in advance. In the case of scheduled maintenance, the schedule of critical activities must be made available to NOCs at least five (5) Working Days in advance. It is not necessary to inform the NOCs of completion of such activities. If, however, the maintenance action results in a Cataleptic Failure or a Partial Outage, the procedure in Clause D.8.2 above should be followed.

D.9.2 **Routine Testing:** All Parties shall supply each other test numbers to be used for test calls for routine testing of the Interconnection circuits. The Parties agree to use artificial traffic generators in such a way so as not to unduly load the Interconnection.

D.9.3 **System and circuit identification:** Generic system and circuit identification shall be exchanged between the Parties for mapping to its own generic system and circuit identification scheme.

D.9.4 **Joining Circuit utilisation details:** The Parties may, where required, exchange records of utilisation and Call connection performance over the interface to ensure that service over the interface is maintained at satisfactory levels. Information regarding planned dates for route augmentation shall also be exchanged between the Parties whenever necessary.

D.10 Prevention of harm and injury

D.10.1 Each Party must take reasonable measures to ensure its staff, employees, contractors and agents do not cause physical harm or injury to the other Party's Network or personnel.

D.11 Interference and obstruction

D.11.1 Neither Party must do anything by act or omission, or knowingly permit any third person to do anything, in relation to Network facilities, Network services or equipment which:

- a) causes interference; or
- b) materially obstructs, interrupts or impedes the continuous use or operation of, the Network facilities, Network services or equipment of the other Party.

D.11.2 **Notice of interference and rectification:** If one Party (Notifying Operator) notifies the other Party that the other Party's Network facilities, Network services or equipment is causing interference to the Notifying Operator's Network facilities, Network services or equipment:

- a) the other Party shall rectify the situation so that no interference is caused within 24 hours of receiving notice from the Notifying Operator; or
- b) if the other Party is not able to locate the source of the interference within 24 hours the other Party shall promptly notify the Notifying Operator, and both Parties shall meet within 24 hours of such notice and jointly examine each other's Network facilities, Network services or equipment to locate the source of the interference.

D.12 Staff access to co-location sites

D.12.1 The Parties recognise that on sites controlled by one Party which contain equipment of the other Party, it will be necessary for staff of the other Party to visit the equipment from time to time for maintenance, inspection or other purposes.

D.12.2 The procedures for the authentication of visiting staff and for providing access to equipment will be as set out in Schedule 1 to this Annex D, unless otherwise agreed between the Parties.

D.13 Network alterations

D.13.1 Network Alterations may be required by one Party that affect the other Party. This includes changes to the Network structure or operation as well as:

- closing, replacing or relocating a switch in respect of which an interconnection link is connected,
- decommissioning an interconnection link or a link with wholesale leased circuits
- closing a POI,
- decommissioning co-location sites
- closing shared sites or facilities
- de-activating interconnection services.

D.13.2 Network Alterations may be:

- a) required by the Access Provider as part of Network development, or

D.13.3 Where the Network Alteration is requested by the Access Seeker for the provision of new Interconnection Services, this shall be handled as part of the provisioning processes set out in Annex B – Ordering Processes.

D.13.4 Where the Network Alteration is requested by the Access Seeker for the decommissioning of services supplied by the Access Provider, this shall be handled under the Decommissioning process in Clause D.14 below

D.13.5 The Requesting Party shall provide notice to the other Party for each Network Alteration that will impact on the other Party's Network according to the minimum periods set out in Table D.2 below. The Requested Party shall respond within four (4) weeks with an estimate of the reasonable costs (if any) involved in responding to the Alterations within its own Network.

Table D.2: Minimum notice periods for Network Alterations

Type of Network Alteration	Minimum notice period (months)
Software changes	2
Hardware changes	4
Facility location changes	8

D.13.6 The Requesting Party shall pay the reasonable costs of the Requested Party for the impact the Network Alteration has on the Requested Party's Network.

D.13.7 If the Requested Party believes that it is not in a position to proceed with the requested Network Alteration, either within the timescales requested or in any circumstances, the Requested Party shall advise the Requesting Party within two weeks of receipt of the request. In these circumstances both Parties shall make all reasonable endeavours to resolve the situation, including recourse to the dispute resolution process if required.

D.13.8 With the exception of decommissioning, closing or relocation of Points of Interconnection (see Clause D.14), the Access Provider is required to give the Access Seeker one Calendar Month notice of Network changes that impact the services provided to the Access Seeker or require the Access Seeker to make changes in their Network

D.14 Decommissioning

D.14.1 If decommissioning is to occur where physical interconnection has been established, the Access Provider will, if requested by the Access Seeker within twenty five (25) Working Days after receiving a notice under Clause D.14.3, offer alternative interconnection solutions to the Access Seeker. The alternative interconnection solutions must, to the extent feasible, be comparable in terms of cost and functionality and, if accepted by the Access Seeker within fifty (50) Working Days from the date of the offer, must permit the full implementation of the alternative interconnection solutions. Nothing in this Clause prevents the decommissioning from occurring on the expiry of the

decommissioning period provided that the Access Provider has complied with this Clause.

D.14.2 If decommissioning is to occur where customer sited interconnection has been established then the Access Provider will arrange for the connection of Joining Circuits to the alternative or relocated switch or POI prior to the decommissioning.

D.14.3 Either Party may, for whatever reason upon giving no less than six Calendar Months (decommissioning period) prior written notice to the other Party:

- close, replace or relocate a switch in respect of which an interconnection link is connected,
- decommission an interconnection link or a link with wholesale leased circuits
- close a POI, shared sites or shared facilities
- decommission physical co-location sites

D.14.4 The Access Provider shall bear its own costs associated with the decommissioning together with the direct costs incurred by the Access Seeker in respect of the decommissioning and establishment of alternative arrangements necessary to support the provision of interconnection services provided at the time of the decommissioning.

D.15 Software upgrades/modifications

D.15.1 Software version enhancements must be initially introduced and tested between the Parties at test exchanges to ensure that there are no interworking problems before introduction into an active exchange. The Party making the software enhancement must give the other Party a minimum of two weeks written notice before testing can commence.

D.15.2 Unless otherwise agreed in writing between the Parties, a 30 Calendar Day lapse between a software upgrade in any switching unit and the general release into the rest of the network is required.

D.15.3 A controllable number of software patches should be activated in any 24 hour period on the same switching unit. The testing of such patches will be by mutual agreement in writing. All applications and tests must be completed in low traffic periods i.e., between 22:00 and 05:00 or at other times by mutual agreement in writing.

D.16 Data Management Amendments

D.16.1 In order to ensure the timely implementation of Data Management Amendments, notice of Data Management Amendments shall be provided by the Requesting Party to the Requested Party at least four weeks in advance of the requested implementation date. The format of the notice is shown in Schedule 3 to Annex D, unless otherwise agreed between the Parties.

D.16.2 If a Requested Party believes that it is not in a position to proceed with the requested Data Management Amendment, either within the time-scales requested or in any circumstances, the Requesting Party shall be advised within two weeks of receipt of the request. In these circumstances the Parties shall make all reasonable efforts to resolve the situation, including recourse to the dispute resolution process as set out in Annex F – Dispute Resolution.

D.16.3 Data Management Amendments required to activate new geographic or mobile Customer number ranges allocated or amended by URCA shall be carried out on a free of charge basis.

D.16.4 In relation to all other Data Management Amendment requests, where it is jointly agreed as being of mutual benefit to both Parties or where there is a financial benefit accruing to the Requested Party, it shall be carried out on a free of charge basis. In all other cases, the fees for Data Management Amendment requests carried out by BTC shall be the hourly rate as set out in Annex G – Price List multiplied by the time taken to complete the task.

Schedule 1 to Annex D: Access to co-location sites

D-1.1 Rights of access

D-1.1.1 An Access Seeker shall be entitled to have access to a co-location site operated by the Access Provider at any time for any of the following purposes:

- to inspect a site to determine its suitability for sharing;
- to install, test or commission the Access Seeker's equipment at the site;
- to make modifications to the Access Seeker's equipment at the site;
- to maintain the Access Seeker's equipment at the site.

D-1.2 Access process

D-1.2.1 The Access Provider will facilitate site access required by the Access Seeker, including maintaining a list of nominated contact staff and contact details to enable the Access Seeker to arrange access visits. This list will be available to the Access Seeker electronically, and the Access Provider will send the Access Seeker a revised list at least 24 hours before the revision takes effect.

D-1.2.2 The Access Seeker will notify the Access Provider of its request to access shared sites at the earliest time, and not less than twenty-four (24) hours before access is required. In the case of access for emergency maintenance, a notice period of not less than four (4) hours is required, unless otherwise agreed between the Parties.

D-1.2.3 The Access Provider will supervise the staff or contractors of the Access Seeker during the period of the access to shared sites employing staff or contractors with qualifications appropriate to the purpose of the visit and the nature of the sharing at the site.

D-1.2.4 The Access Provider may charge the Access Seeker for the cost of the supervision associated with the access visit in accordance with the rates set out in Annex G – Price List. The charges shall include the time necessary for any recall to duty and for travel to supervise the access visit.

D-1.2.5 The Access Seeker will nominate to the Access Provider which of its staff will undertake shared site access visits, and the Access Provider may require visiting Access Seeker staff to provide personal identification in a form approved by the Access Provider before being admitted to a co-location site. The list of nominated staff will be available to the Access Provider electronically, and the Access Seeker will send the Access Provider a revised list at least 24 hours before the revision takes effect.

Schedule 2 to Annex D: Sample performance reports

Joining Circuits performance report

Joining circuits between Bahamas Telecommunications Company and [Operator]			
Date of report			
Performance measures	Present quarter	Previous quarter	Previous quarter
Bit error rate			
Joining circuits availability (%)			
Circuits outage time (total minutes)			
Number of faults on circuits			
Total network restoration time (minutes)			
Average fault restoration time (minutes)			

Fault performance report

Interconnection between Bahamas Telecommunications Company and [Operator]					
Date of report:					
Quarter covered by report:					
Fault number	Date and time fault reported	Fault classification	Cause of fault	Target fault restoration time	Date and time fault cleared
1					
2					
3					
etc.					

Schedule 3 to Annex D: Data Management Amendment notice

Name of Operator			Date of order			
Intercon nection service	Amend/New /Cease	POI where change required	Ready for test date	Implementation date required	Test required?	Test number
Please provide detailed specific information on the data amendment being requested						
For [Operator] Signature Name Position Date			For BTC Signature Name Position Date			

Annex E – Billing

E.1 Charging principles

E.1.1. Delivered services and related installation and usage charges will be invoiced according to the principles and procedures defined in this Annex. The value of charges will be calculated using the prices as defined in Annex G - Price List or the relevant Firm Estimate.

E.1.2 Each Party shall be responsible for billing its own Customers and for the collection of debts from its own Customers.

E.2 Usage based services

E.2.1. The usage based Interconnection Services are:

- A.1. Call Termination Service to Geographic Numbers
- A.2. Call Termination Service to Non-geographic Numbers
- A.3. Call Termination Service to Mobile Numbers
- A.4. Call Termination Service to Automated Ancillary Services
- A.5. Directory Enquiries
- A.7. Operator Assistance Services
- A.8. Emergency Call Services
- A.9. Call Termination Service to Freephone Numbers
- A.10. International Call Transit Service
- A.11. National Call Transit Service

E.2.2. Both Parties shall collect a CDR for each individual call subject to usage based charging and shall retain a copy for the CDR for a minimum of one year in order to assist with any billing disputes. The call details contained on the CDRs in respect of Calls made shall include but not be limited to:

- Calling number (Compulsory) (text format);
- Called number (Compulsory) (text format);
- Start date of Call (date=yyyy-mm-dd format);
- Start time of Call (time=hh:mm:ss AM/PM format);
- Duration of Call (Integer format);
- Serving Switch (text format);
- Onward terminating network.

E.2.3. The CDRs collected by the Invoicing Party will be the source of the data used by the Invoicing Party to invoice for the terminating fixed voice call service. The Invoicing Party for Call Transit services shall be the Access Provider.

E.2.4. The calculation of charges for the usage based Interconnection Services will be based on the number of calls and their duration recorded on the basis of the number of

applicable Billing Units and in accordance with the applicable rates specified for the Interconnection Service in Annex G - Price List.

E.2.5. Calls shall be charged based on the initiation of use and for the duration of the call. Charging for voice calls shall commence upon the receipt of an Answer Message and cease upon the receipt of a Release Message at the point of recording by the Party recording the relevant Call Detail Record. All Successful Calls are chargeable.

E.2.6. If the duration of a call extends over two or more charge rate periods, the call shall be apportioned over the periods according to the time spent in each period.

E.2.7. Calls that cross over into the next billing period shall be allocated to the billing period in which the call started.

E.2.8. The Access Provider will invoice the Access Seeker for usage based services in arrears for each billing period for the usage incurred up to the end of the billing period for which the invoice is raised.

E.2.9. The Access Provider shall not bill for any services provided more than 12 Calendar Months prior to the date of the invoice. The Access Provider shall not bill for services outside the billing period unless there are good reasons for doing so.

E.2.10. The Parties will agree arrangements to ensure that their clocks are synchronised for the purpose of billing peak and off-peak periods, if needed. Where a time discrepancy arises between the Parties, the Access Provider shall, if requested, provide the Access Seeker with appropriate evidence of its time calibration maintenance and other records.

E.2.11. The Invoicing Party shall send invoices by way of electronic exchange or, if agreed between the Parties, by facsimile transmission on the date of issue of the invoice followed by a paper copy via post.

E.3 Non-usage based services

E.3.1. The non-usage based services for the purposes of this Annex are:

- A.6 – Directory Number Inclusion Service
- A.12 – Joining Circuits
- A.13 – Points of Interconnection

E.3.2. Joining Circuits provided by the Access Provider shall be billed based on the charges set out in Annex G – Price List.

E.3.3. For any Points of Interconnection services the Access Provider will collect the relevant service charges from the Access Seeker.

E.3.4. The calculation of charges for the physical co-location services and site sharing services shall relate to the specific service elements that constitute the service at any

specific site, and will be in accordance with the applicable rates specified in Annex G - Price List. The service element charges shall include:

- floor space, charged on the basis of a per square foot per period applicable to each individual co-location site or each category of co-location site, which rate shall include provision for building and other site services of the kind normally associated with the operation of land and buildings;
- caging (if provided) charged on the basis of a once-only provisioning charge for the cost of planning and installing a cage, and, if applicable, the associated costs of re-locating the Access Provider's equipment at the site to enable the cage to be accommodated;
- power, on the basis of a rate per kilowatt/hour attributable in any period to the co-located equipment; and
- other relevant activities like tie cabling, providing access to sites, etc.

E.3.5. The Access Provider will invoice the Access Seeker for non-usage based services in advance for each billing period. For all non-usage based services, the Access Provider is the Invoicing Party.

E.3.6. The Invoicing Party shall issue to the other Party (the Invoiced Party) within 30 Calendar Days of each billing period an invoice in writing or in such electronic form as may be agreed from time to time.

E.3.7. The billing period is a calendar month unless otherwise determined by the Invoicing Party and notified to the Invoiced Party at least 3 months in advance. The Invoicing Party will provide a reasonable justification for the requirement to change the billing period to the Invoiced Party.

E.3.8. The Invoicing Party shall send invoices by way of electronic exchange or, if agreed between the Parties, by facsimile transmission on the date of issue of the invoice followed by a paper copy via post.

E.4 Payment process

E.4.1. Subject to Clause E.5, the Invoiced Party shall pay the amount of the invoice no later than twenty (20) Working Days from the date of receipt of the relevant invoice (due date). For the avoidance of doubt, the Invoiced Party shall pay this amount to the Invoicing Party regardless of whether the Invoiced Party has received payment from its customers.

E.4.2. In addition to exercising any rights, the Invoicing Party has at law or under the agreement, where an undisputed amount is outstanding and remains unpaid for more than thirty (30) calendar days after it is due for payment, the Invoicing Party reserves the right to take action, upon notice to the Invoiced Party, to recover any such amount as a debt due to the Invoicing Party. The Invoicing Party will notify the Invoiced Party of its intent to take action at least 5 Working Days before doing so.

E.4.3. Payments are deemed to be received on the date the payment is received by the Invoicing Party, unless the payment is subsequently dishonoured, in which case, payment is deemed not to have been received until cleared funds are received by the Invoicing Party, together with all dishonoured fees and charges.

E.4.4. If the Invoiced Party does not pay a sum payable by the due date, the Invoicing Party may charge a penalty on the amount from time to time outstanding in respect of that overdue sum for the period beginning on its due date and ending on the date of the receipt of the overdue sum by the Invoicing Party (both before and after judgement) in accordance with this clause. The Invoiced Party agrees to pay the penalty on demand.

E.4.5. The penalty shall be calculated as 1.5 per cent of the overdue sum for each month or part month that the sum is overdue. Where a penalty in respect of any due and unpaid amount is due to the Invoicing Party, the Invoicing Party may add the amount of such penalty to its next invoice.

E.4.6. Either Party may request a joint investigation of invoice discrepancies after one Party has conducted a comprehensive internal investigation. The joint investigation may include the generation of test calls to the other Party's Network. The Party requesting the investigation will be liable for the cost of any test calls.

E.4.7. Each Party may set off amounts owed to it by the other Party against amounts invoiced to it.

E.5 Verification

E.5.1. The Access Provider shall use its reasonable endeavours to provide billing verification of interconnection usage reports for the usage based services for incoming and outgoing traffic with the format set out in Schedule 1 to Annex E – Billing Verification Usage Reports Format within thirty Calendar Days from the end of each billing period together with the invoice for the usage based services.

E.5.2. In addition to the obligation in Clause E.5.1, when there is a dispute in relation to invoices issued, the Parties shall exchange the detailed billing verification information as specified in Schedule 2 to Annex E – Detailed Billing Verification Information.

E.5.3. In the event that the Access Provider cannot record billing verification information for one or more of the usage based services due to a system error or other faults, upon the request of the Access Provider, the Access Seeker shall provide billing verification information to the Access Provider for billing purposes.

E.5.4. A Party shall arrange audits of billing records and processes as often as it deems it necessary to ensure accurate billing.

E.6 Billing errors

E.6.1. The Parties agree on a maximum of two per cent (2%) margin of error in invoices and all invoices falling within such margin shall be deemed to be payable. With regard to

any amount exceeding such two per cent (2%) margin, the Party receiving the invoice shall have the right to withhold payment of the disputed amount until resolution of the billing dispute in accordance with Clause E.7 below, but must make payment of the undisputed amount. The right to withhold payment of the disputed amount shall lapse in case of failure to initiate such billing dispute procedures within the time frames specified in Clause E.7.

E.6.2. If the Invoiced Party discovers an error that is greater than the margin set out in Clause E.6.1 in an invoice given by the Invoicing Party, or the Invoiced Party discovers a smaller but persistent error, it shall notify the Invoicing Party as soon as practicable. The Invoicing Party shall make the adjustment necessary to correct that error in its next invoice, if it is able to verify the error.

E.6.3. If the Invoicing Party has omitted or miscalculated charges from an invoice, the Invoicing Party may include or amend (respectively) those charges in a later invoice, as long as the Invoicing Party is able to substantiate these charges to the Invoiced Party and the inclusion or amendment is made within six months of the issuing of the invoice.

E.6.4. If the Invoiced Party makes an overpayment in error, it shall notify the Invoicing Party accordingly within thirty calendar days of the date on which the overpayment was made with sufficient details for the Invoicing Party to be able to identify the overpayment. If the Invoicing Party verifies the overpayment, the Invoicing Party shall return the amount overpaid to the Invoiced Party within ten (10) Working Days of the notice of overpayment.

E.6.5. Notwithstanding any other provision in this Annex, a penalty shall not accrue or become payable in respect of sums added to an invoice in error.

E.6.6 The Parties acknowledge that invoices cannot be warranted as being free from errors.

E.7 Billing disputes

E.7.1. Where a Party (the “Disputing Party”) disputes the invoice of the Invoicing Party, the Disputing Party shall send a written “notice of dispute” within ten (10) Working Days of the date of receipt of the disputed invoice to the Invoicing Party. Failure to submit a notice of dispute within the ten (10) Working Day period shall be deemed to be indisputable confirmation of the correctness of the invoice. For the avoidance of doubt, a Disputing Party can dispute an invoice where the error exceeds the margin stipulated in Clause E 6.1 or where the error is smaller but persistent over a period of time.

E.7.2. The notice of dispute must:

- clearly identify aspects of the invoice being disputed;
- state the specific reason(s) with reference to the information required
- provide a daily report specifying the calls, durations and values for the relevant POI.

E.7.3. If Invoicing Party determines that the information is insufficient to identify the disputed amount, the Disputing Party must immediately supply the relevant portion of the Disputing Party's CDRs and indicate the discrepancy in the Invoicing Party's invoice.

E.7.4. The Disputing Party's unavailability of records shall not constitute an acceptable basis for disputing an invoice under this Agreement and any notice of dispute issued on that basis shall not be valid.

E.7.5. The Invoicing Party shall, within five (5) Working Days of receipt of a notice of dispute, deliver to the Disputing Party CDRs supporting the invoice in question. The CDRs, once provided satisfactorily (*i.e.*, in the manner/form indicated in sub-clause E.2.2) shall be prima facie proof of the correctness of the relevant portion of the invoice in question and the onus of proving the incorrectness thereof shall rest with the Disputing Party.

E.7.6. The Parties shall endeavour to settle amicably any such billing dispute and shall use reasonable efforts to agree upon an escalation procedure. If the Parties fail to resolve their billing dispute for any reason, including but not limited to a Party disputing the authenticity or completeness of the other Party's CDRs, within five (5) Working Days of the Disputed Party's receipt of the Invoicing Party's CDRs or within ten (10) Working Days of the Invoicing Party's receipt of the notice of dispute, whichever shall first occur, the Disputing Party shall issue a "Notice of Failure of Dispute Resolution" within five (5) Working Days. The Notice of Failure of Dispute Resolution shall be accompanied by relevant CDRs from the Disputing Party's records.

E.7.7. In the Notice of Failure of Dispute Resolution, the Disputing Party shall be required to state a date and venue for its Chief Executive and the Chief Executive of the Invoicing Party or appointed delegates to meet. The date of such meeting shall be not more than five (5) Working Days after the date the Notice of Failure of Disputed Resolution is issued. If the dispute is not resolved with ten (10) Working Days of such meeting, the Chief Executives or delegates shall refer such dispute for investigation and determination by a firm of independent auditors, chosen by the Parties, with expertise in billing matters in the electronic communications industry. Such independent auditors shall not be the auditors of either of the Parties.

E.7.8. In the event that the Parties cannot agree on a firm of independent auditors within five (5) Working Days, the Parties shall, on the expiration of the five (5) Working Days, appoint a firm of independent auditors nominated by the President for the time being of the Bahamas Institute of Chartered Accountants. Such entity shall be recognised and commissioned by both Parties as the "Third Party Expert" within ten (10) Working Days of such recommendation, during which time the final terms of reference and fees shall be agreed. The auditors shall, in their determination of the dispute, act as experts and not as arbitrators and their decision shall be final and binding on the Parties.

E.7.9. The Chief Executives of the Parties or their appointed delegates shall separately provide the Third Party Expert with all written correspondence and CDRs exchanged

with the other Party, together with all relevant information requested by the Third Party Expert within five (5) Working Days of commissioning.

E.7.10. Failure of the Disputing Party or the Invoicing Party to meet obligations within the duration provided in relevant Clauses, or an inability to produce records or refusal to agree to the fees quoted by the Third Party Expert, shall not prevent the commissioning of the Third Party Expert.

E.7.11. The Third Party Expert shall produce and deliver to the Chief Executives of the Parties a report on its findings not later than thirty (30) Working Days after receiving all written correspondence, CDRs and other requested relevant information. Such a report shall be delivered by courier and facsimile to the Disputing Parties. Failure of either of the Parties to supply information requested will not prevent the Third Party Expert from carrying out his/her duties.

E.7.12. Both Parties shall be entitled to comment on the findings of the Third Party Expert within five (5) Working Days after the report on the findings has been delivered by the Third Party Expert.

E.7.13. The Third Party Expert shall consider the comments, after which a final decision shall be made.

E.7.14. The final decision of the Third Party Expert shall be binding on both Parties and may be made by an order of court pursuant to the laws of The Bahamas. The Invoicing Party shall have the right to raise a demand notice immediately and the Invoiced Party shall make payment within ten (10) Working Days of the demand notice. The Invoicing Party shall have the right to invoke Clause 18 of the Main Terms and Conditions should the breach continue for another fifteen (15) Working Days.

E.7.15. Both Parties shall contribute equally to pay any initial down payment required by the Third Party Expert prior to commencement of work.

E.7.16. The Third Party Expert shall allocate the cost of his or her fees between the Invoiced Party and the Invoicing Party, including the initial fees, on a fair and reasonable basis having regard to the nature of the dispute. If, as a result, one Party owes the other Party some or all of the initial fees of the Third Party Expert paid under Clause E.7.15, it shall refund the amount owed within twenty (20) Working Days of the Third Party Expert's decision on the allocation of costs.

E.7.17. The provisions of Clause E.7 constitute an irrevocable consent by the Parties to any proceedings described by this clause and neither Party shall be entitled to withdraw therefrom or claim that it is not bound by such provisions.

E.7.18. The Parties agree to keep the subject matter of their billing dispute and the evidence submitted during any resolution by a Third Party Expert confidential and agree not to disclose such subject matter or evidence to anyone except in the event that the

decision is made by an order of court pursuant to the laws of The Bahamas, in which case such subject matter or evidence may be disclosed to the relevant court.

E.7.19. Notwithstanding the above, if the billing dispute is resolved without reference to a Third Party Expert and a payment amount has been agreed, the Invoiced Party shall have the right to raise a demand notice immediately and the Invoicing Party shall make payment within five (5) Working Days of the demand notice.

E.8 Billing representatives

E.8.1. Enquiries relating to billing, collecting and settlement arrangements or in relation to Network and operation billing issues must be directed to the nominated billing representative of the other Party as identified in Schedule 1 – Contact Details. Billing dispute notices must be sent to these representatives.

E.8.2. Either Party may at any time nominate another billing representative, provided that ten (10) Working Days' prior notification of such appointment is given.

Schedule 1 to Annex E: Billing verification usage report format

This schedule will show the reports agreed between the Parties in order to record information for the purposes of verifying bills as required by Clause E.5.1. Samples are shown below.

Table E-1.1: Billing verification report for traffic

Call Type			
Service type	Total number of calls	Total duration	Total revenue
	N	M	R
Total	ΣN	ΣM	ΣR

or such other form of Billing Verification Report as the Parties may from time to time reasonably agree.

Where: N = the total number of Calls

Where M = the total Chargeable Call Duration

Where R = the total Revenue Charge which will comprise of:

M x Rate per minute; or

N x Rate per call; or

M x Rate per minute plus N x Rate per call

Table E-1.2: Billing verification for interconnection and wholesale circuits

Circuit reference number	A-end address	B-end address	Circuit type	Connection fee	Rental
1					
2					
Etc					
Total					

or such other form of Billing Verification Usage Report as the Parties may from time to time reasonably agree.

Schedule 2 to Annex E: Detailed billing verification information

This schedule will show the call data records to be exchanged between the Parties in the event that there is a dispute about the billing of interconnection traffic, as required by Clause E.5.2. Samples are shown below.

Table E-2.1: Dispute information form

Date					
Switch					
Invoice reference number		Calls	Duration	Charge	Comments
	Total on Access Provider's invoice				
	Total on Access Seeker's records				
	Discrepancy				
	Total on Access Provider's invoice				
	Total on Access Seeker's records				
	Discrepancy				

or such other form of Dispute Information as the Parties may from time to time reasonably agree.

If the discrepancy cannot be resolved as a result of the information on this form, the form in Table E-2.2 may be used in order to investigate the problem in more detail.

Table E-2.2: Detailed dispute information form

Invoice reference number						
Point of Interconnection						
Route						
Date						
	Calls			Minutes		
	Peak	Off peak	Total	Peak	Off peak	Total
Day 1 month 1						
Day 2 month 1						
Day 3 month 1						
Etc						

or such other form of Detailed Dispute Information as the Parties may from time to time reasonably agree.

If it is necessary to compare call data records in order to investigate the dispute, the form below can be used:

Table E-2.3: Sample detailed call data record

Calling party number	Called party number	Date of start of charge	Time of start of charge	Chargeable duration	Interconnection node	Interconnection route

or such other form of Detailed Call Data Records as the Parties may from time to time agree.

Annex F – Dispute Resolution

F.1 General process

F.1.1 The Parties will encourage their staff and employees to resolve disputes that arise in the provision of Interconnection Services at the lowest practical levels in their respective organisations.

F.1.2 Notwithstanding Clause F.1.1, the Parties will instruct their staff and employees to escalate disputes that are not expeditiously resolved at lower working levels.

F.1.3 Billing disputes should be resolved according to the provisions of Clause E.7.

F.1.4 Nothing in this Annex shall reduce the Parties' rights to redress under the laws of The Bahamas.

F.1.5 The Parties shall continue to be bound by the obligations in this Agreement while any dispute between them is being resolved by the processes set out in this Annex F – Dispute Resolution.

F.2 Escalation of disputes

F.2.1 Either Party may escalate a dispute to a higher level in the dispute resolution hierarchy outlined in the table below. Although it is expected that disputes that cannot be resolved at one level in the dispute resolution hierarchy should be escalated to the next higher level, a Party may decide to escalate the dispute more rapidly if in its consideration the severity and potential impact of the dispute on the provision of Interconnection Services and on Customers warrants such accelerated escalation.

Table F.1: Dispute resolution process

Level in Dispute Resolution Hierarchy	Description	Disputes that are typically expected to be resolved at this level
1. (Lowest)	Operational level - involving the operational staff of each Party up to Field Supervisor level	Operational disputes associated with the interpretation and implementation of detailed operating processes and practices
2.	Management level - involving the managers in charge of operational units	Operational disputes escalated from the Operational level
3.	Senior management level	All disputes associated with the implementation of this Agreement, including disputes arising in the course of negotiations to change or amend this Agreement
4.	Chief Executive level - involving the CEOs of each Party	All disputes associated with the implementation of this Agreement, including disputes arising in the course of negotiations to change or amend this Agreement.
5.	Independent third party including URCA or UAT	Disputes that the Parties cannot resolve requiring, in the view of one or both of them, the involvement of an independent Arbitrator, Mediator, URCA or UAT.

F.3 Resolution of disputes at Chief Executive level

F.3.1 Either Party may escalate a dispute to the Chief Executive level if it appears that there is little likelihood of middle and senior management (stages 2 and 3) resolving the matter and where the gravity and potential impact of the dispute on the timely provision of Interconnection Services warrants such an escalation.

F.3.2 The Chief Executives shall adopt whatever process for examining and, if possible, resolving the dispute as appears to them to be appropriate having regard to the nature and complexity of the issues associated with the dispute and its possible means of resolution.

F.4 Independent arbitration and mediation

F.4.1 Should the Chief Executives of the Parties fail to reach unanimous agreement in the determination of any dispute referred to them as in Clause F.3, the Parties undertake to meet promptly and consider whether or not the dispute should be referred to arbitration, mediation, to URCA or the UAT. If the Parties agree in writing that the dispute should be referred to arbitration or mediation, such dispute will be determined by

arbitration or mediation in accordance with the remaining provisions of this Clause F.4, and either Party may then file a request for arbitration or mediation.

F.4.2 If, within a period of two (2) Working Days of meeting pursuant to Clause F.4.1, the Parties fail to reach agreement in writing to refer the dispute to arbitration or mediation, or if the Chief Executives fail to arrange a meeting within two (2) Working Days of an escalation of the dispute under Clause F.3.1, or if the Parties so agree, either Party will be entitled to commence litigation proceedings against the other Party or to refer the dispute to URCA or to the UAT under Clause F.5.

F.4.3 Notwithstanding anything to the contrary contained in this Clause F.4, neither Party shall be precluded from obtaining interim relief from a court of competent jurisdiction (including URCA or the UAT) pending the decision of an Arbitrator or Mediator appointed pursuant to this Clause F.4. In the event of a reference to the arbitration panel or to a Mediator, both Parties shall compile a detailed dispute report which shall include origin, nature, extent, issues and any proposals for resolution and make their respective reports available to the Arbitrators or Mediator and each other within ten (10) Working Days of the referral.

F.4.4 The arbitration panel shall consist of two (2) members, both of whom shall be appointed in accordance with the provisions of the Arbitration Act, Chapter 180. The arbitration panel shall, in accordance with the Arbitration Act, decide upon and give directives as to all matters of procedure to be followed by the Parties in resolving the dispute and who shall bear the costs of the arbitration. The decision of the Arbitrators shall be final and binding and may be made an order of court.

F.4.5 As an alternative to arbitration, both Parties may agree to appoint a Mediator whose task will be to broker an agreement between the Parties. The Mediator will be chosen as set out in Clauses F.4.3 – F.4.4, and the Parties will be bound by any agreement made by the Parties resulting from the mediation. The Parties may request URCA to act as the Mediator.

F.4.6 The Parties agree to keep the arbitration or mediation, including the subject matter of the arbitration or mediation and the evidence heard and/or submitted during the arbitration or mediation, confidential and not to disclose the arbitration or mediation, its subject matter and the evidence heard and/or submitted to anyone except in the event that the decision is made by an order of court or of URCA or the UAT, in which case the arbitration or mediation, its subject matter and the evidence heard may be revealed to the relevant court or to URCA or the UAT.

F.5 Reference of disputes to URCA or to the UAT

F.5.1 If the Chief Executives agree that a dispute should be referred to URCA or the UAT under Clause F.4.1 above, both Parties shall refer the dispute to URCA or the UAT. If the Chief Executives fail to resolve the dispute after completing the process adopted under Clause F.3.2, either Party may refer the dispute to URCA or to the UAT. Each Party will bear its own costs of the reference of any dispute to URCA or to the UAT. The

Parties shall follow the processes and timescales set out by URCA or the UAT in any regulations relevant to dispute resolution.

Annex G – Price List

G.1 Call Termination to Geographic Numbers (cents per minute)

	All hours
Calls to numbers on the same island	0.83 0.75
Calls to numbers on another island	1.26 1.13

*Calls are charged on a per second basis
Prices exclude any sales or value added tax*

G.2 Call Termination to Non-Geographic Numbers (cents per minute)

	All hours
Calls to non-geographic numbers	2.01

*Calls are charged on a per second basis
Prices exclude any sales or value added tax*

G.3 Call Termination to Mobile Numbers (cents per minute)

	All hours
Domestic traffic	No Charge
International traffic	4.61
<u>Incoming domestic calls to BTC's mobile network</u>	<u>2.48</u>
<u>SMS termination on BTC's mobile network</u>	<u>1.40</u>

*Calls are charged on a per second basis
Prices exclude any sales or value added tax*

G.4 Call Termination to Automated Assistance Numbers (cents per call)

	All hours
915 (weather)	No Charge
917 (time of day)	No Charge

Prices exclude any sales or value added tax

G.5 Call Termination to Directory Enquiries (cents per call)

All hours
29.75

BTC RAIO

~~Prices~~ *exclude any sales or value added tax*

June 2011

Amended 31- Jan-2016

G.6 Charges for entry to Directory Number Inclusion Service (dollars per number)

Per number (\$)
1.91

Prices exclude any sales or value added tax

G.7 Call Termination to Operator Assistance Service (cents per minute)

	All hours
Person to person	51.00
Station to station	34.00

*Calls are charged on a per second basis
Prices exclude any sales or value added tax*

G.8 Call Termination to Emergency Service (cents per minute)

All hours
2.33

*Calls are charged on a per second basis
Prices exclude any sales or value added tax*

G.9 Call Termination to Freephone Numbers (cents per minute)

	All hours
Call Termination to Freephone Numbers	No Charge

*Calls are charged on a per second basis
Prices exclude any sales or value added tax*

G.10 International Transit (cents per minute)

All hours
0.75

*Calls are charged on a per second basis
Prices exclude any sales or value added tax*

G.11 National Transit Call Conveyance (cents per minute)

	All hours
Transit across one Point of Interconnection	0.90
Transit between two Points of Interconnection	2.45
Transit across one Point of Interconnection to BTC's mobile	1.04
Transit across two Points of Interconnection to BTC's mobile	2.59

Calls are charged on a per second basis

Prices exclude any sales or value added tax

G.12 Joining Circuits

The one-off charges and monthly recurring charges for Joining Circuits shall be as follows:

	One-off charges [B\$]	Monthly recurring charges [B\$]
Intra-island joining circuit segments		
Distance dependent charge per mile for duct		1,620
OC3 per unit (per T1 circuit)		6.70
DS3 per unit (per T1 circuit)		10.10
Footway box (per box)	3,951	38
Inter-island joining circuit segments		
Submarine tariff/T1 link		1,370
Testing charges (Per man hour)		
Service testing charges		Per Man-Hour 23.47

Minimum contract term of 5 years, early termination fees apply

Other capacities than the ones presented can be provided on a bespoke basis.

G.13 Points of Interconnection

Physical co-location

Service	Detail	Price (\$)	
		New Providence	Grand Bahama
Site preparation		As in Firm Estimate	
Site rental	Rent per sq. ft.	35.50	13.50
Power consumption	Per kWh consumed	As charged by Bahamas Electricity Corporation*	
	Per KVA per year	As charged by Bahamas Electricity Corporation*	
Other facilities	Tie cables	As in Firm Estimate	

See <http://www.bahamaselectricity.com/rates.cfm>

Prices exclude any sales or value added tax

Customer-Sited Interconnection

The Interconnection Link between the premises of the Access Provider and the Access Seeker shall be charged as under G.12 above. Charges for space and facilities for any equipment placed by the Access Provider in Customer Sited Interconnection sites shall be as for Physical Co-location above.

In-Span Interconnection

The Interconnection Link between the premises of the Access Provider and the Access Seeker shall be charged as under G.12 above.

G.14 Data Management Amendments

The hourly rate for Data Management Amendments is \$20 per hour. The actual charge shall be based on the amount of time taken to implement the amendment.

G.15 Cost of supervision

The hourly rate for the supervision of access to co-located facilities is \$23.50 per hour. The actual charge shall be based on the amount of time taken to supervise the visit, plus any travelling and preparation time required for the visit, multiplied by the factor shown below for supervision outside of normal working hours.

Day	Hours	Multiple
Normal working day	8.30 am - 4.30 pm	1.0
	4.30 pm - midnight	1.5
	Midnight - 6.30 am	2.0
	6.30 - 8.30 am	1.5
Weekends	All	2.0
Christmas Day, New Year's Day, Good Friday and Labour Day	All	2.5
All other public holidays	All	2.0

Annex H – Quality of Service Standards

H.1 Principles

H.1.1 BTC will provide the Interconnection Services to the Access Seeker at the same level of Quality of Service as for its own customers or those of its subsidiaries or companies.

H.1.2 Both Parties shall be responsible for regularly measuring and monitoring the traffic and Quality of Service on the interconnection circuits between their Networks.

H.1.3 Both Parties will comply with the quality of service standards set out in this Annex. Both Parties agree that a consistent failure to achieve these targets is a ground for a Dispute under Annex F – Dispute Resolution.

H.2 Ordering standards

H.2.1 The Parties will conform to the following timescales for Service Requests, as set out in Annex B – Ordering Processes Clause B.3. Any delay caused by the Access Seeker shall be added to the figures below.

Table H.1: Quality of service standards for Service Requests (Working Days)

Service Request submitted	R
Preliminary Response sent	R + 5
Considered Response sent	R + 15
If Service Request rejected, statement of reasons sent	R + 25

R = Date of submission of Service Request

H.2.2 The Parties will conform to the following timescales for the delivery of facilities, as set out in Annex B – Ordering Processes Clause B.6.

Table H.2: Timescales for delivery of facilities services (Working Days)

Service Request	R
Feasibility Study and Considered Response to Service Request	15 days after R
Advanced Facilities Order	At least 30 days before D
Advanced Facilities Order acknowledgement and issue of first invoice	At least 29 days before D
Firm Facilities Order	25 days before D
Firm Facilities Order acknowledgement	24 days before D
Delivery confirmation	At least 5 days before D
Delivery of facilities	D
Issue of second invoice	D

R = Date of submission of Service Request

D = Delivery of facilities date

Any delay caused by the Access Seeker shall be added to the figures above.

H.2.3 The Parties will conform to the following timescales for the delivery of Joining Circuits, as set out in Annex B – Ordering Processes Clause B.7.

Table H.3: Timescales for delivery of Joining Circuits (Working Days)

	Circuits over new link	Additional circuits over existing link
Service Request and Lease Request	R	
Considered Response to Service Request	Within 15 days after R	
Firm Capacity Order	25 days before D	5 days before D
Order Acknowledgement	24 days before D	4 days before D
Delivery confirmation	Within 10 days before D	Within 5 days before D
Delivery of circuits	D	D
Ready for Test notice	Within 2 days after D	Within 2 days after D
Test	Within 5 days after D	Within 5 days after D
Issue of second invoice	5 days after D	5 days after D

R = Date of submission of Service Request

D = Delivery of facilities date

Any delay caused by the Access Seeker shall be added to the figures above.

H.2.4 The Parties will conform to the following timescales for the negotiation of New Interconnection Services, as set out in Annex B – Ordering Processes Clause B.8.

Table H.4: Quality of service standards for requests for New Interconnection Services (Working Days)

Service Request	R
Preliminary Response sent	R + 10
Feasibility Study and Considered Response to Service Request	R + 30
If Service Request rejected, statement of reasons sent	R + 40

R = Date of submission of Service Request

Any delay caused by the Access Seeker shall be added to the figures above.

H.3 Standards for Joining Circuits

H.3.1 Joining Circuits to Points of Interconnection shall be dimensioned to provide a busy hour grade of service of not less than 0.01 (that is, 1.0% of calls across the circuit shall experience congestion).

H.3.2 Joining Circuits shall be available to this standard for 99.8% on an annual basis.

H.3.3 These standards of service shall be measured according to the methods set out by ANSI. Any Customer Delays or planned maintenance shall be excluded from the calculations to estimate the availability standard described in Clause H.3.2.

H.3.4 The Parties shall provide availability statistics on the availability of Joining Circuits every three months to each other, using a form agreed between the Parties (a sample of which is shown in Schedule 2 of Annex D).

H.4 Standards for network availability

H.4.1 The standard of service for network availability is measured as the unsuccessful call ratio, as defined by ANSI.

H.4.2 The Parties will ensure that the ratio of Unsuccessful Calls to total calls should exceed 50%, measured over a period of three months.

H.4.3 The Parties shall measure the total number of calls, and the number of unsuccessful calls sent to each other's network over a period of three months. Each Party shall exchange this data one month after the end of the three month period, using an agreed form (a sample of which is set out in Schedule 2 to Annex D).

H.4.4 If the Access Seeker believes that the Access Provider is discriminating against it by providing an inferior service compared to that provided to its own retail customers, the Access Seeker shall have the right to institute a dispute as described under Annex F – Dispute Resolution.

H.5 Service restoration

Joining Circuits

H.5.1 A fault occurs when a Joining Circuit does not operate to the standards of service defined in Clause H.3.

H.5.2 The Parties shall repair faults on Joining Circuits according to the following timescales:

Table H.5: Service restoration timescales for Joining Circuits (hours)

Event	Service Affecting fault	Service Interrupting fault
Requesting Party issues Fault Notice	T – 1	T – 1
Requested Party issues Fault Acknowledgement	T	T
Requested Party informs the Requesting Party of time for repair		T + 4
Requesting Party may escalate fault	T + 4	R
Requested Party completes fault repair and issues Repair Completion notice	T + 4	R
Repair deemed completed or Requesting Party rejects	T + 5	R + 2
Requested Party issues Repair Clearance notice	T + 5 unless RP rejects Repair Completion notice	R + 2 unless RP rejects Repair Completion notice

T = Issue of Fault Acknowledgement

R = Repair completed by the providing Operator

RP = Requesting Party

Any Customer Delays shall be added to the above table.

Other network faults

H.5.3 **Target times:** Each Party shall use its best endeavours to respond to and rectify faults of a type listed in the following table in accordance with the relevant response and restoration timeframes shown in the table below:

Table H.6: Service restoration times

Priority Level	Fault Types (Key examples)	Response Time *	Restoration Time
Level 1	Major switch outage Transmission bearer total outage Route blocking in excess of 50% of utilised capacity Major signalling faults Major routing issues Fraudulent calls	Every 1 hour	4 hours
Level 2	Minor switch outage Minor routing faults Minor signalling problems Route blocking of 10% to 50% of utilised capacity Crossed lines and silent calls	Every 4 hours	24 hours
Level 3	Faults affecting single or a small number of Customers Route blocking of less than 10% of utilised capacity	Every 24 hours	72 hours
Level 4	Remote Congestion External Technical Irregularities Other performance related issues	Every 48 hours	14 days

* Indicates the frequency of response until the fault is cleared

Any Customer Delays shall be added to the above table.

H.5.4 The Access Provider shall provide repair cover on a 24x7x365 basis.

H.6 Penalties

H.6.1 The Access Provider shall be liable for penalty payments if it fails to meet the targets for ordering, testing (as set out in Tables H.2 and H.3 above) and service restoration (as set out in Table H.5 above). The amounts of the penalty payments are calculated with reference to the monthly recurring charge for relevant facility or Joining Circuit, as set out in Annex G. The key performance indicators and penalties are as set out in Table H.7 below.

Table H.7: Penalty payments

Service	Key performance indicator	Penalty
Facilities (as defined in Clause B.6.1)	Delivery date	One and a half day's recurring charge for every day of delay
Joining Circuits - new links	Delivery date	One and a half day's recurring charge for every day of delay
Joining Circuits - existing links	Delivery date	One and a half day's recurring charge for every day of delay
Joining Circuits	Completion of testing	One and a half day's recurring charge for every day of delay
Fault repairs - service affecting fault	Repair of fault	15% of one day's recurring charge for every 2 hours of delay

H.6.2 Any Customer Delays or delays due to the Access Seeker will be added to the calculation of the key performance indicator.

H.6.3 The Access Seeker is responsible for initiating the reclaim of any penalty payments, which if agreed by the Access Provider, will appear as a credit on the next monthly invoice issued in accordance with Annex E – Billing Processes.

H.6.4 If the Parties dispute the applicability of a penalty or the amount of the penalty, they shall resolve the matter using the dispute resolution procedures set out in Annex F – Dispute Resolution.

Annex I – Definitions

In this Agreement, the following terms shall have the meanings set out below next to those terms:

Access Provider means, as will be apparent from the context, BTC in its capacity as a Licensed Operator of a public electronic network or public electronic services that provides an Interconnection Service to another such Licensed Operator

Access Seeker means, as will be apparent from the context, a Licensed Operator of a public electronic network or public electronic services that requests or is provided with an Interconnection Service by BTC

Agreement or **Access and Interconnection Agreement** means the legal contract between BTC and another Licensed Operator for the provision of access and interconnection services, based on this Reference Access and Interconnection Offer

ANSI means the American National Standards Institute

Arbitrator means a person appointed under Annex F - Dispute Resolution Clause F.4 to decide how a dispute between the Parties should be resolved

Breach Notice means a notice sent by one Party to the other Party specifying a breach of the terms of this Agreement by the other Party, a period of time for its remedy and the consequences of a failure to remedy the breach, as set out in Clause 18.1

Calendar Day means a period of 24 hours ending at midnight including weekends and public holidays.

Call means the set-up, holding and ending of any transmission path through the Network of any Party into the Network of the other Party for the conveyance of messages, and where the context requires shall mean a Call of a particular type, such as a voice Call, or a mobile Call, or a transit Call, and “calling” and “called” shall have corresponding meanings

Called Party means with respect to a Call, the person receiving that Call

Caller or Calling Party means with respect to a Call, the person initiating or making that Call

Cataleptic Failure means a sudden failure, persisting for longer than 10 seconds, which is characterised by complete inability to perform all required functions of any item in the Interconnection.

CDR means Call Data Record

CLI means Calling Line Identification

Considered Response means a response provided by an Access Provider to a Service Request, as set out in Annex B – Ordering Processes Clause B.3.4.

Conveyance means the establishment by a Party of a transmission path through that Party's Network and the conveyance of Messages over that transmission path in accordance with the terms of this Agreement

Customer means a party which has subscribed to a Licensed Operator for the provision of an electronic communications service, but which is not, for the purposes of this Agreement, a Licensed Operator

Customer Delay means any delay in meeting the standards set out in Annex H- Quality of Service, for ordering, provisioning, delivery and fault repairs which is due wholly or partly to the Operator or to Customers of the Operator for whom the service is being performed

Data Management Amendment means the data reconfiguration of the Network of one Party in order to route or to charge for calls

Disputing Party means a Party disputing an invoice raised by the Invoicing Party under Clause E.7.1

Effective Date means the date on which the interconnection agreement becomes effective, as identified in the preamble to main terms of this Agreement

Emergency Services means the Royal Bahamas Police Force, the Royal Bahamas Defence Force, and the providers of fire brigade, ambulance, coast guard and other emergency services as may be specified by the laws of The Bahamas or by URCA

Fault means a condition that causes a Network to operate other than intended or to cease operating altogether

Fault Rectification means the correction of a Fault

Fault Response means the action of responding to a Fault, and includes responding remotely using electronic monitoring systems, and physical response at the location where the Fault is situated

Firm Estimate means the Access Provider's contractual quotation of the cost of providing facilities and interconnection links and the timescales for their delivery under Clauses B.6 and B.7 of Annex B – Ordering Processes

Freephone Number means a service number defined by ITU-T E.164, and is a number allocated within the National Numbering Plan for calls which are charged to the called party excluding Collect Calls

Force majeure has the meaning ascribed to it in the Main Terms and Conditions Clause 20.1

Force Majeure Notice has the meaning ascribed to it in Main Terms and Conditions Clause 20.2

Geographic Number means a service number as defined by ITU-T E.164, and is a number allocated within a national numbering plan for use in a nominated geographic area(s) with a specific area code

Grace Period means a period of time before a penalty payment becomes payable by a Party under Clause H.6 of Annex H

ISUP means Integrated Services Digital Network User Part

Interconnection means the physical or logical linking of networks to allow the users of one network to communicate with users of another network or to access carriage services provided by another licensee

Interconnection Link means a physical link over which circuits for the conveyance of electronic communications traffic may be provided and which connects the Network of one Party with another

Interconnection Outage means the duration of cataleptic or partial failures of any of the components included in the Interconnection

Interconnection Service means a service defined as an interconnection service in Annex A

Interconnection Traffic Route means the group of 64 kb/sec channels over which a given type of interconnection traffic is directed

Invoiced Party means the Party which receives an invoice from the other Party

Invoicing Party means the Party which issues an invoice to the other Party

Joining Circuit means a channel of 1.544 Mbps capacity which is provided on a Joining Path for the carriage of traffic between the Network of one Party to another Party

Joining Path means the physical fibre optic or radio transmission link that carries Joining Circuits and that connects the Network of one Party with another

Licensed Operator means an organisation licensed by URCA to provide an electronic communications service

Mbps means megabits per second

Mediator means a person appointed under Annex F - Dispute Resolution Clause F.4 to assist the Parties in resolving a dispute between the Parties

Mobile number means a service number defined by ITU-T E.164, and is a number allocated within the National Numbering Plan for use by mobile customers

MSC means mobile switching centre

National Numbering Plan (NNP) means the National Numbering Plan for The Bahamas as approved and published by URCA

Nature of Address (NoA) means the information sent in association with a Call to indicate the nature of the address (e.g., "international number", "national (significant number)" or "subscriber number") as specified in the ISDN User Part (ISUP) messages of SS7

Network means a network established for the conveyance of electronic communications traffic to and from Customers

Network Alteration a physical change in the network, including changes in network configuration and interfaces and the events set out in Clause D.13.1, of one Party necessary to permit the continued efficient operation of Interconnection Services as a result of a change made in the network operated by the other Party

Network Operations Centre (NOC) means a facility established by a Party under Clause D.6.2 to handle outages, faults and other matters concerning interconnection traffic between the Networks of the Parties

Network Plan means a diagram of the layout and structure of the Networks of the Parties, including the Points of Interconnection and Joining Circuits. It shall also show major changes proposed by a Party for its Network over the next three years

Network Termination Point means the boundary of a Network, and, in context, usually refers to the specific case of the boundary between a Network and Customer equipment and wiring attached to a Network

New Interconnection Service means a service which is not described in the Reference Access and Interconnection Offer, but which is included in a market in which the Access Provider has significant market power (as designated by URCA under the Communications Act 2009 s 40) not currently provided to the Access Seeker

Non-geographic number means a service number defined by ITU-T E.164, and is a number (excluding Freephone Numbers and Mobile Numbers) allocated within the National Numbering Plan for use nationally

Notice of Failure of Dispute Resolution means a notice issued under Clause E.7.5

Notifying Operator means the Party that notifies the other Party of congestion under Clause D.12.2

Operator, as will be apparent from the context, means one of the signatories to this Agreement

Originating Operator means the Licensed Operator who is responsible for conveying a call from the Network Termination Point of the Calling Party to the Point of Interconnection

Partial Outage means any failure (other than a cataleptic failure) which affects more than 15% of the total number of ports in a POI.

Party or Parties means one or both of the signatories to this Agreement

Preliminary Response means a response provided by an Access Provider to a Service Request, as set out in Annex B – Ordering Processes Clause B.3.2

Point of Interconnection (POI) means the Network boundary between the Access Provider's and the Access Seeker's Networks for the purposes of Interconnection

Reference Access and Interconnection Offer means the document with this title, along with supporting annexes and schedules, as approved by URCA and published on the website of the Bahamas Telecommunications Company

Requested Party means the Party that receives a request to make a Network Alteration or a Data Management Amendment under Clauses D.13 or D.16, or to repair a fault under Clause H.5.

Requesting Party means the Party that makes a request to make a Network Alteration or a Data Management Amendment under Clauses D. 13 or D.16 or to repair a fault under Clause H.5.

Review Notice means a notice served under Main Terms and Conditions Clause 21 by one Party to the other requesting a review of this Agreement

Service Affecting Fault means a fault which results in a total and continuous loss of the ability to use the Interconnection Service which is subject to the fault

Service Interrupting Fault means a fault which results in the degradation of the level, quality, functionality or operation of the Interconnection Service, but which does not result in a Service Affecting Fault

Service Request means a request for an Interconnection Service as set out in Annex B – Ordering Processes Clause B.2

Service restoration means the restoring of a service and may occur whether or not the fault that gave rise to the fault affecting service has been rectified or not

SS7 means Common Channel Signalling (CCS) No.7 Signalling System

Terminating Operator means the Licensed Operator who is responsible for conveying a call from the Point of Interconnection to the Network Termination Point of the Called Party

Third Party Expert means an independent expert appointed under Clause E.7.8 to resolve a billing dispute

Transit Call means a Call carried across the Access Provider's Network from one Point of Interconnection to another pursuant to the Transit Call Conveyance Service more fully described in Annex A – Services Schedule Clause A.10 and A.11.

UAT means the Utilities Appeal Tribunal, as established by the Utilities Appeal Tribunal Act 2009, or any successor body

Unsuccessful Call means a Call for which an answer signal has not been received because of congestion.

URCA means the Utilities Regulation and Competition Authority as established by the Utilities Regulation and Competition Authority Act 2009, or any successor body,

Working Day means a period of 24 hours ending at midnight excluding weekends and public holidays. A weekend is defined as Saturday and Sunday.

Schedule 1 - Contact details

This schedule sets out the key contact people for the administration of this Agreement for both the Parties, with the following details:

The Bahamas Telecommunications Company Limited (BTC)

Notices pursuant to Clause 26.1

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)

Service Request Manager pursuant to Clauses 11.2 and B2.1

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)

Interconnection Manager pursuant to Clause D1.1

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)

Member of Joint Working Party pursuant to Clause D1.2

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)

Member of Joint Working Party pursuant to Clause D1.2

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)

Member of Joint Working Party pursuant to Clause D1.2

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)

Member of Joint Working Party pursuant to Clause D1.2

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)

Network Operations Centre Contact Person pursuant to Clause D.8.1

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)

Billing Representative pursuant to Clause E.8.1

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)

Other Party

Notices pursuant to Clause 26.1

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)

Service Request Manager pursuant to Clause B2.1

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)

Interconnection Manager pursuant to Clause D1.1

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)

Member of Joint Working Party pursuant to Clause D1.2

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)

Member of Joint Working Party pursuant to Clause D1.2

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)

Member of Joint Working Party pursuant to Clause D1.2

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)

Member of Joint Working Party pursuant to Clause D1.2

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)

Network Operations Centre Contact Person pursuant to Clause D.8.1

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)

Network Operations Centre Manager pursuant to Clause D.8.5

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)

Network Operations Centre Senior Manager pursuant to Clause D.8.5

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)

VP Network Services pursuant to Clause D.8.5

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)

Billing Representative pursuant to Clause E.8.1

Name
Title
Address
Email address
Telephone numbers (work fixed, mobile and after hours)
Name and mobile phone number of deputy (for cases of holidays etc)