Digicel

Interconnection Agreement

with

Columbus Communications

Trinidad Limited

LEGAL FRAMEWORK

PRIVATE & CONFIDENTIAL

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THIS AGREEMENT is made in duplicate this

day of

, 2013.

BETWEEN

- A) DIGICEL (TRINIDAD AND TOBAGO) LIMITED, a limited liability company duly incorporated and existing under the laws of the Republic of Trinidad and Tobago, having its principle place of business at Third Floor, ANSA Centre, 11C Maraval Road, Port of Spain, Republic of Trinidad and Tobago ("Digicel"); and
- B) COLUMBUS COMMUNICATIONS TRINIDAD LIMITED, a limited liability company duly incorporated and existing under the laws of the Republic Trinidad and Tobago having its principal office situated at 29 Victoria Square, Port of Spain, Republic of Trinidad and Tobago ("CCTL").

Each a "Party" and collectively "the Parties".

Whereas:

- Pursuant to Concessions issued by the Minister, both Digicel and CCTL are entitled to operate Public Telecommunications Networks and to provide Public Telecommunications Services in Trinidad and Tobago.
- ii. Pursuant to Concessions issued by the Minister, CCTL is entitled to operate a domestic Public Telecommunications Network and to provide domestic and international Public Telecommunications Services in Trinidad and Tobago.
- iii. CCTL has requested interconnection of its Public Telecommunications Network with that of Digicel, and the Parties have agreed to interconnect their respective networks in accordance with the Telecommunications Act, 2001 on the terms and conditions set out herein.

It is hereby agreed as follows:

- 1. Definitions and Applicability
- 1.1 In this Agreement, unless the context otherwise requires or explicitly states, the terms used shall have the meanings assigned to them in the Definitions Schedule.
- 1.2 In this Agreement, unless the context otherwise requires or explicitly states:
 - a) The singular includes the plural and vice versa;
 - b) Reference to an agreement or other instrument includes any variation or replacement to or of either of them;
 - c) Reference to any Clause, Schedule, Annex or other Attachment is a reference to a clause of, or schedule, annex or attachment to this Agreement and any reference to this Agreement includes any such Schedule, Annex or other



- Attachment. Reference to any Paragraph is a reference to a paragraph of a Schedule, Annex or Attachment.
- Reference to any statute, ordinance, code or other law includes regulations and other instruments under it and any consolidations, amendments, re-enactments or replacements thereof at any time;
- e) The expression "person" includes any individual, firm or company;
- f) All references to \$TT or other payable amounts refer to Trinidad and Tobago Dollars unless otherwise stated; and
- g) If a day on which payment of money falls due is not a Business Day, the due day for such payment shall be deemed to be the next following Business Day.
- 1.3 References in this Agreement to either Party shall include any legitimate successors or assigns of that Party pursuant to Clause 32.
- 1.4 Headings are included for convenience and do not affect the interpretation of this Agreement.
- 1.5 In the event of any inconsistency between the numbered Clauses of this Agreement and the Schedules, Annexes or other Attachments, the numbered Clauses of this Agreement shall prevail. In any other event the following order of priority will apply:
 - a) Definitions
 - b) Service Descriptions
 - c) Joint Working Manual
 - d) Service Schedule and Parameter Schedule
 - e) Tariff Schedule

2. Duration

- 2.2 The Parties agree that in the event that the period set out in Clause 2.1 expires and the Parties have not concluded an agreement replacing this Agreement, the terms and conditions of this Agreement shall continue in full force and effect until such time as a replacement agreement is concluded, provided however, that neither Party shall be



obliged to continue to provide service if no agreement is reached and approved within nine (9) months of the conclusion of the term referenced in Clause 2.1.

3. Interconnection

- 3.1 Subject to the provisions of this Agreement, Digicel shall, within seven (7) days of this Agreement coming into effect, connect and keep connected the Digicel System to the CCTL System and CCTL shall connect and keep connected the CCTL System to the Digicel System in the manner described in this Agreement in order to convey Calls and Messages to, from or in transit over their respective Systems.
- 3.2 Subject to Clause 15, Points of Connection shall be established between the CCTL Interconnect Points of Presence and Digicel Interconnect Points of Presence specified in the Service Schedule in accordance with the Joining Service as more particularly described in the Service Descriptions.
- 3.3 Each Party shall ensure that any Telecommunications Apparatus necessary to the provision of interconnection pursuant to this Agreement conforms to the technical requirements set out in the Joint Working Manual.

4. Forecasting, Ordering and Provision of Interconnect Capacity

- 4.1 The Parties will exchange Forecasts for each Service as required in the Service Descriptions in accordance with the procedures set out in the Joint Working Manual and shall comply with all the applicable provisions of the Joint Working Manual relating to forecasting.
- 4.2 The Parties will order and provision capacity in accordance with the procedures set out in the Joint Working Manual.

5. Testing

The Parties will carry out the Acceptance Testing and commissioning procedures described in the Joint Working Manual, or as agreed by both Parties in writing.

6. Operation and Maintenance

- 6.1 Subject to Clause 9.1, each Party shall be responsible for planning, providing, operating and maintaining all Telecommunications Apparatus located on its side of the Point of Connection.
- 6.2 Each Party shall manage traffic on its System so as to avoid disruption to the other Party's System to the maximum extent reasonably practicable and each Party shall take all necessary steps as are reasonably practicable to minimise service failures and congestion and signalling system disturbances within its own System which would affect the ability of the other Party to carry Calls across such other Party's System in accordance with the routing principles set out in the Joint Working Manual and the Parameter Schedule.

- 6.3 Each Party shall advise the other Party of any Faults or planned maintenance in accordance with the procedures set out in the Joint Working Manual and shall resolve the Faults or conduct the maintenance in accordance with the Joint Working Manual.
- Each Party may make reasonable tests and inspections of any services and Telecommunications Apparatus it provides to the other, and may upon reasonable notice temporarily interrupt Services carried on the Telecommunications Apparatus being tested or inspected in accordance with the provisions of the Joint Working Manual relating to planned maintenance. Where a test or inspection will affect telecommunications traffic originating or terminating on or transiting the other Party's System, the testing or inspection shall be carried out in such a way as to minimise disruption to the other Party's System.

7. System Changes

- 7.1 Either Party shall notify the other Party of developments within its System that may impact on the provision of Services to the other Party upon finalization of a decision to make such a change.
- 7.2 Neither Party shall make or permit to be made any alteration, adjustment or addition to its System in such a way as to materially impair the operation of the other Party's System or otherwise to materially affect the conveyance of Calls over a Point of Connection unless the Party provides reasonable prior written notice to enable the other Party to make modifications to its own System which are necessary to maintain interconnection at the agreed standards. Each Party shall take appropriate and reasonable steps to minimise the impact on the other Party of such alteration, adjustment or addition (including the costs).
- 7.3 In the event that at any time either Party proposes to change any standards or implement additional standards or standards with different features which may affect the operation of the other Party's System, the Party shall so notify the other Party as soon as practicable. When giving such notice, the Party shall, where possible, give six (6) months written notice, so that the other Party has a reasonable opportunity to attempt to meet such standards or adjust its System accordingly but will not be liable in the event that six months' notice is not possible. Each Party shall take appropriate and reasonable steps to minimise the impact on the other Party of such change, adjustment or addition (including the costs).
- 7.4 Subject to Clauses 7.2 and 7.3, nothing in this Agreement shall limit either Party's ability to upgrade its System through the incorporation of new equipment, new software or otherwise or to change, in part or in whole, the design, function, operation or layout of its System.
- 7.5 The applicable standards of operation of each Party's System for the purpose of the Services will be those specified in the Joint Working Manual and, in the absence of any specified standards, will be such prevailing international industry standards agreed to by the affected parties, such agreement not to be unreasonably withheld, conditioned or delayed.



8. Telecommunication Services

- 8.1 Each Party shall provide the other with the Services for which that Party is indicated as being the Service Supplier in the Service Schedule, provided that each Party's System and all relevant Points of Connection are suitable for the conveyance of Calls pursuant to the relevant Service Description. Subject to Clause 15 the Services shall be provided in accordance with the Service Descriptions and the Joint Working Manual.
- 8.2 For the avoidance of doubt, and notwithstanding the interconnection of the Parties' Systems, neither Party shall hand over to the other Party, nor have an obligation to convey, or continue to convey Calls of any category, unless the Parties have agreed to convey Calls of that category pursuant to a Service Description. In the event that Calls not expressly provided for are handed over and accepted for conveyance, the following supplementary charges will be applied: (i) where the Call is of a type described in a Service Description, the charges for that Service as set out in the Tariff Schedule, and (ii) where the Call is of a type not described in a Service Description, such amount as is reasonable having regard to all of the circumstances.
- 8.3 Each Party shall be solely responsible for the switching and routing of all telecommunication services on its System and shall not be liable for telecommunications services provided by a Third Party Telecom Provider. Such switching and routing shall be consistent with the principles in the Joint Working Manual.
- 8.4 Notwithstanding anything contained in this Agreement, either Party shall have an absolute and unfettered right to request a reconfiguration or reallocation of the existing circuits interconnecting the Parties' networks, so as to maximise the flow of traffic between them, to whichever interconnection services it wishes, and the other Party shall ensure that such reconfiguration or reallocation takes place within five (5) business days of such request being made.

9. Charges and Payment

- 9.1 Each Party shall pay to the other the relevant Charges applicable to each Service as more particularly described in the Service Descriptions and tariffed in the Tariff Schedule.
- 9.2 Unless otherwise stated Charges payable by Digicel to CCTL for a Service shall be the same as the Charges payable by CCTL to Digicel for the same Service. In the event that a Party's charges for a service are varied pursuant to Clause 10, the other Party may vary its Charges for the same service.
- 9.3 Payments shall be made in an agreed form and will be deemed made on the date of receipt of such payments in cleared funds.
- 9.4 Subject to Clause 9.6, all Charges payable under this Agreement shall be payable within thirty (30) days of deemed receipt of an invoice. In the event that either Party shall fail to pay any amount due hereunder within such thirty (30) day period, (i) the

payee shall be entitled to charge and receive interest at the Repo Rate of the Central Bank of Trinidad and Tobago, from and including the day following the due date for payment until the date of payment in full, whether before or after any court judgement or other award, and (ii) the payee may deduct the amount it is owed from any amount it owes the other Party.

- 9.5 The Parties may agree in writing to make payments on a "net" basis. If one Party is owed an amount by the other Party, the first Party may deduct the amount it is owed from the amount it owes the other Party and pay only the "net" amount. The Parties agree to issue invoices showing full amounts owing by the other Party.
- 9.6 In the event that either Party disputes the specific amount of any invoice delivered by the other Party under this Agreement the Parties shall resolve the dispute in accordance with the investigation and determination procedures set out in the Joint Working Manual. Notwithstanding any dispute as to any payment, the Parties shall remain obliged to continue to observe and perform the provisions of this Agreement including, but not limited to, continuing, subject to the provisions of Sections 23 and 24 herein, to provide Service to each other.
- 9.7 Any amount in dispute shall, for the purposes of this Clause, be deemed not payable pending resolution of the dispute under Clause 34. Nothing in this Clause shall be taken as permitting a Party to withhold payment of an amount that is not in dispute. For the avoidance of doubt, where an invoice consists of a payment that is partly in dispute, the undisputed amount shall be paid. Where appropriate, any value added or other applicable tax shall be added to all or any part of the Charges under this Agreement, and shall be paid by the Party responsible for making such payment.

10. Variation of Charges

- 10.1 Either Party may from time to time notify the other of new Charges or changes to specific Charges,
 - i) where the Authority has approved new Charges or changes to specific Charges
 - ii) where a Third Party Telecom Provider that has been issued a concession under the Telecommunications Act has made changes to its charges and these charges form part of the specified Charges.

Such notice shall specify the date on which the variation is to become effective. In the case of new Charges or changes to specific Charges falling within (i) above, such new Charges or changes to specific Charges will take effect from the effective date approved by the Authority. In the case of changes falling within (ii) above, evidence of the change by such Third Party Telecom Provider shall be provided to the other Party, and TATT (and the bona fides of the change shall be verified by TATT) and the changes will take effect from the date set out in the notice as being the effective date, such date being at least five (5) weeks from the date such notice is deemed to be received unless, in the case of changes falling within (ii) above, the Party notifying the change does not receive sufficient notice from such Third Party Telecom Provider. In the case of changes falling within (ii) above, to the extent that the notifying Party



does not receive sufficient notice from such Third Party Telecom Provider to give at least five (5) weeks' notice of any changes, that Party will give as much notice as is reasonably practicable.

11. Billing

- 11.1 Each Party shall be responsible for invoicing its own Subscribers.
- 11.2 Each Party shall be entitled to invoice the other Party for the relevant Usage Charges and Monthly Recurring Charges following the expiration of each Billing Period. Each Party shall use reasonable endeavours to deliver invoices in a timely manner in accordance with the Joint Working Manual.
- 11.3 Subject to Clauses 11.2 and 11.4, each Party shall be entitled to invoice the other Party for applicable One-off Charges and any other amounts expressed as being payable in accordance with the specific provisions of this Agreement.
- 11.4 Any failure to deliver invoices in accordance with Clause 11.2 or 11.3 shall not be deemed to be a waiver of the invoicing Party's rights in respect of payment or a breach of a material obligation of the invoicing Party.
- 11.5 For the purpose of reconciling accounts, each Party shall use all reasonable endeavours to provide the other with Billing Data in respect of Calls messages conveyed from its System and handed over to the other Party at the Point of Connection in accordance with the Joint Working Manual.
- 11.6 Notwithstanding the above, in the event that:
 - a) Billing Data is temporarily or permanently unavailable;
 - b) in the first twelve (12) months following signature of this Agreement, a billing error is discovered that occurred in the previous three (3) Billing Periods; or
 - c) at any time after the first twelve (12) months following signature of this Agreement, a billing error is discovered that occurred in the previous Billing Period

the Parties shall follow the procedures set out in the Joint Working Manual.

12. Infrastructure Sharing

- 12.1 Nothing in this Agreement shall be taken as requiring a Party to share Telecommunications Facilities or to provide co-location.
- 12.2 Co-location or sharing of a Party's Telecommunications Facilities may be provided under a separate agreement between the Parties.
- 13. CLI/ANI

- 13.1 The Parties will pass CLI in accordance with the Joint Working Manual and any agreed code of practice for CLI from time to time in force. For the avoidance of doubt, neither Party is required to pass CLI for any Call in respect of which CLI is not available.
- 13.2 No Party shall alter or amend ANI or permit or accept the alteration or amendment of ANI unless such alteration or amendment is agreed in advance in writing by both Parties. Without in any way restricting any other breaches of this Agreement being deemed to be material breaches, a breach of this clause 13.2 shall be deemed a material breach of the Agreement.

14. Numbering

- 14.1 Each Party shall make the necessary adjustments to its System in a timely manner to route Calls to the other Party's System in accordance with the number ranges and other numbers assigned to the other Party under the National Numbering Plan and in accordance with the Service Descriptions and the Service Schedule.
- 14.2 Each Party shall use numbers in accordance with the National Numbering Plan and shall use consistent and uniform dialling patterns and shall not impose anticompetitive non-uniform dialling patterns on calls between the subscribers on the Parties' networks.

15. Service Performance and Standards

- 15.1 Subject to Clause 15.3, the Parties shall use all reasonable endeavours to comply with the provisions relating to quality of service set out in the Joint Working Manual and the Parameter Schedule.
- 15.2 Subject to Clause 15.3, the Parties shall use all reasonable endeavours to at all times apply standards (including signalling standards) and operating guidelines which are consistent with the Joint Working Manual.
- 15.3 Save as is set out in Clause 15.1 and 15.2, the Parties provide no other warranties, representations, undertakings or commitments in respect of quality of service including, but not limited to, warranties, representations, undertakings or commitments in respect of difficulties or faults which result in a failure to establish service, in-service interruption or loss of or distortion of communication, and all implied warranties are hereby excluded.

16. Safety and System Protection

- 16.1 Each Party shall be responsible for the safe operation of its System and shall take all steps reasonably necessary or required by law to ensure that such operation and the implementation of this Agreement:
 - a) comply with any specific safety and protection requirements contained in this Agreement (including, without limitation, the Joint Working Manual);



- b) do not endanger the safety or health of the officers, employees, contractors, representatives, agents, invitees or Subscribers of the other Party;
- c) do not damage, interfere with or cause any impairment to or deterioration in the operation of the other Party's System;
- d) do not interfere with the use or provision of licensed telecommunication services provided by the other Party, provided that this principle shall not preclude the taking of action by either Party in the normal operation of its System to protect its System, on condition that any such action is in compliance with the Joint Working Manual.
- 16.2 In the event that it is agreed to be necessary or desirable for representatives of a Party to access the premises of the other Party, each Party shall use its reasonable endeavours to comply with all reasonable security and safety practices and procedures applicable to access to and operations on the premises of the other Party notified to it by the Party whose premises are being visited. Subject to the indemnified Party complying with Clause 26.6 each Party shall indemnify and keep indemnified the other against all risks and damages, costs, claims and expenses arising out of any breach by the indemnifying Party of this Clause 16.2.

17. Prevention of Fraud

- 17.1 A Party shall not be obliged to convey, receive or terminate Calls (i) where the volume of such Calls materially exceeds that which could reasonably be expected and such traffic impedes the transmission of other Calls, or (ii) such Calls are otherwise significantly harmful to the integrity of the Party's System.
- 17.2 A Party shall not be restrained from taking any reasonable actions, including not conveying, receiving or terminating Calls, in the event of (i) payment not being received from a Third Party in respect of Calls, or (ii) fraud being carried out against the Party, provided that the same action is taken in respect of all affected Calls.
- 17.3 To the extent permitted by law, the Parties will promptly upon becoming aware of fraudulent use, theft or misuse of the Parties' respective Services and associated Telecommunications Apparatus inform the other of such circumstances.
- 17.4 If requested, the Parties shall co-operate in the provision of information to the Authority or to other relevant regulatory bodies, in relation to fraudulent use, theft or misuse of the Parties' respective Services and associated Telecommunications Apparatus.

18. Confidentiality

18.1 Subject to the following provisions of this Clause 18, a Receiving Party shall keep in confidence Confidential Information and will not (and will use its best efforts to ensure that its directors, employees, agents, representatives, affiliates and professional advisers will not) disclose such information to any third party and shall require that

such persons be bound in writing with obligations equivalent to the terms contained in this Clause 18.

- 18.2 A Receiving Party shall exercise no lesser security or degree of care over Confidential Information than that Party applies to its own Confidential Information and in any event such security or degree of care shall be no less than would be exercised by a reasonable person with knowledge of the confidential nature of the information.
- 18.3 A Receiving Party shall restrict disclosure of Confidential Information relating to the other Party to those who have a reasonable need to know and the Authority. Confidential Information shall be used solely for the purposes for which it was disclosed. Unless otherwise agreed in writing, a Receiving Party shall not use the other Party's Confidential Information to provide commercial advantage to its Customer Facing Divisions.
- 18.4 A Receiving Party may disclose Confidential Information to a contractor or agent, subject to the contractor or agent having a reasonable need to know and undertaking to comply in writing with obligations equivalent to those contained in this Clause 18.
- 18.5 A Receiving Party may disclose Confidential Information to an Associated Company, subject to the Associated Company having a reasonable need to know and undertaking to comply with obligations equivalent to those contained in this Clause 18.
- 18.6 All Confidential Information is acknowledged by the Receiving Party to be the property of the Disclosing Party and the disclosure of the Confidential Information shall not be deemed to confer any rights to that Confidential Information on the Receiving Party.
- 18.7 The Disclosing Party may request in writing at any time any written Confidential Information (and/or Confidential Information in machine readable form) disclosed pursuant to the terms and conditions of this Clause 18 and any copies thereof be returned with a written statement to the effect that upon such return the Receiving Party has not knowingly retained in its possession or under its control, either directly or indirectly, any Confidential Information or copies thereof and the Receiving Party shall comply with any such request within seven (7) days of receipt of such request.

19. Third Party Equipment

Use by a Party of equipment shared with, or owned or operated by, a third party for the purposes of offering services under this Agreement, shall not relieve that Party of its obligations under this Agreement. Any delay in the provisioning, offering, maintenance or repair of any equipment or Service or in the resolution of any fault, which is attributable to the use by that Party of equipment owned by or shared with a third party shall be the sole responsibility of that Party, and that Party shall take all necessary steps to (i) ensure that such equipment is operated to the standards set out in this Agreement, and (ii) ensure that any faults in, or delays associated with such equipment are mitigated immediately. The Parties shall have no obligation to take measures beyond those in this Agreement to assist in remedying any such faults or delays.

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20. Intellectual Property Rights

- 20.1 Where any IPR is developed in connection with performance of this Agreement then, in the absence of any other Agreement between the Parties, the owner of the IPR shall be the Party who developed the IPR. Each Party grants to the other a non-exclusive, royalty free licence to use any IPR for the purposes of this Agreement and for its term subject to the other provisions in this Clause 20.
- 20.2 Each Party ("the IP Indemnifying Party") agrees to indemnify the other Party ("the IP Indemnified Party") against all liability or loss arising from, and all reasonable costs, charges and expenses incurred in connection with, any claim, action, suit or demand alleging infringement by the IP Indemnified Party of the rights in Trinidad and Tobago of a third person arising from the use by the IP Indemnified Party of IPR disclosed or licensed by the IP Indemnifying Party under this Agreement except where such IPR has been modified or used other than in accordance with this Agreement subject to the IP Indemnified Party complying with Clause 26.6.
- 20.3 If a Party becomes aware of an infringement or threatened infringement of IPR belonging to the other Party ("the IP Owner") disclosed or licensed by the IP Owner under this Agreement, then that Party shall promptly notify the IP Owner in writing of all the relevant details relating to the infringement, or threatened infringement.
- 20.4 The IP Owner may take such steps and proceedings as it considers necessary or desirable to protect its rights in respect of the IPR, and any rights of the other Party in the IPR, and the other Party must render all reasonable assistance to the IP Owner in this regard at the IP Owner's expense.
- 20.5 If a Party ("the Infringing Party") licenses or otherwise provides IPR to the other Party for the purposes of this Agreement and that IPR infringes the rights of a third Party, then the Infringing Party must:
 - a) at its own expense take such steps as are necessary to cure the infringement, or
 - b) if a) is unreasonable having regard to the likely costs and other relevant matters, provide alternative technology as soon as reasonably practicable.
- 20.6 The Parties acknowledge that this Clause sets out the only remedies and forms for compensation available in respect of any infringement of third Party rights by IPR licensed for the purpose of this Agreement.
- 20.7 A Party must not use a trademark or service mark belonging to another Party without the prior written consent of that other Party.

21. Authorised Representatives

21.1 Each Party shall appoint the representatives referred to in the Joint Working Manual to be responsible for the matters indicated in the Joint Working Manual. Each Party shall notify the other of the identity of the representative(s) in writing no later than five (5) Business Days following signature of this Agreement.

- Except as otherwise provided herein, all correspondence, meetings and other communications (including notification of matters in dispute) pertaining to issues pertaining to their responsibilities shall be directed to and conducted by and through those representative(s). The representative(s) shall keep an appropriate record of all communication with their counterpart(s).
- 21.3 Each party is entitled to change the representative(s) by notice in writing to the other

22. Review and Amendment

- 22.1 Without prejudice to the provisions of Clause 10, either Party may seek to amend this Agreement by serving on the other a review notice if:
 - a) a material change occurs in the laws, regulations, or policy governing telecommunications which affects Trinidad and Tobago (including, without limitation, licence changes, Authority determinations, and court decisions that necessitate the amendment of this Agreement);
 - a RIO or revised RIO submitted by CCTL is approved in whole or in part; b)
 - c) a requirement arises that is not technically feasible;
 - d) a requirement arises for space that is not available; or
 - both Parties agree in writing that there should be a review. e)
- 22.2 A review notice shall set out in reasonable detail the events giving rise to the review required by the notice and the nature of the amendments sought by the Party serving the notice.
- With the exception of reviews arising under Clause 22.1(c), a Party must serve a 22.3 review notice within three (3) months of the event giving rise to the review. On service of a review notice, the Parties shall forthwith negotiate the matters to be resolved with a view to agreeing the relevant amendments to this Agreement.
- If, after a period of thirty (30) days from commencement of such review, the Parties fail to reach Agreement, the Parties shall resolve the dispute through the arbitration process outlined in Clause 34.
- 22.5 For the avoidance of doubt, the Parties agree, that the terms and conditions for this Agreement shall remain in full force and effect during such review until the Parties complete an agreement replacing or amending this Agreement or until such time as this Agreement is terminated in accordance with its terms.
- 23. Suspension and Termination
- Either Party may suspend or terminate this Agreement or the provision of any Service 23.1 or Services on notice in writing in the following situations on the following terms.

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References to "suspension" and "termination" not only include suspension or termination of this Agreement, but also specific Services.

- a) Either Party may with reasonable prior written notice to the other Party stating reasons before such suspension occurs, suspend where suspension is necessary to deal with a material degradation of either Party's telecommunications network or services;.
- b) Either Party may suspend where the other Party fails to pay any undisputed invoice or payable undisputed portion of an invoice within thirty (30) days of deemed receipt of an invoice, and may terminate where the other Party fails to pay any undisputed invoice or any undisputed portion of an invoice when due and has failed to remedy such non-payment within three (3) months of receipt of a notice from the billing Party that the Agreement will be terminated for non-payment;
- c) Either Party may suspend on twenty-four (24) hours written notice where the other Party is engaged in acts or omissions which impair the integrity or security of the Party's network or services, and may suspend on five (5) days' written notice where the other Party is engaged in acts or omissions which will impair the integrity or security of the Party's network or services and has failed to take reasonable steps during that period to ensure that such impairment does not occur;
- d) Either Party may terminate this Agreement where Services have been suspended under the terms of Clause 23.1(c) above for at least thirty (30) days, and the suspended Party fails to remedy the acts or omissions giving rise to the suspension within thirty (30) days of notice under Clause 23.1(c) being given;
- e) Either Party may suspend where the other Party is in breach of any material obligation contained in this Agreement and may terminate where the other Party fails to remedy such breach within 30 days of notice being given;
- f) Either Party may suspend where the other Party knowingly engages in conduct which is harmful to the Party, and which is unlawful or interferes with the obligations of the Party under its Concessions or Licences, the Act or Regulations, and may terminate if the conduct does not cease within 2 days of notice being given;
- g) Either Party may suspend where the other Party engages in conduct that would endanger life or safety, or damage the property of the Party, and may terminate if such conduct is not ceased within two (2) days of notice being given;
- h) Either Party may suspend or terminate if either Party's Public Telecommunications Network Concession and/or Public Telecommunications Services Concession and/or relevant Spectrum Licence necessary to entitle the Party to interconnection or to enable the Party to carry out its obligations at any time expires or is revoked by the Minister in the case or a Concession or

by the Minister or the Authority, as the case may be, in respect of a Spectrum Licence and is not immediately replaced or re-issued;

- i) Either Party may suspend or terminate if the other Party ceases to carry on business, enters into liquidation (other than for the purpose of merger or reconstruction where the emergent company assumes its obligations hereunder) or is dissolved or becomes bankrupt or insolvent or takes or suffers any similar action in consequence of debt;
- j) Either Party may upon ninety (90) days advance written notice suspend or terminate a Service if circumstances arise whereby it is no longer technically feasible for that Party to provide that Service, provided however, that in the unlikely event that it is no longer technically feasible to provide any Service the Party shall be entitled to suspend or terminate this Agreement upon thirty (30) days advance written notice; or
- k) Either Party may terminate with the agreement of the Other Party, on reasonable notice as agreed by the Parties.
- 23.2 In each case where service is suspended pursuant to Clauses 23.1, it shall be restored once the circumstances warranting suspension have ceased to apply. Exercise of a right to suspend under Clause 23.1 shall not prejudice the suspending Party's right to exercise any other existing right to terminate pursuant to clause 23.1. The Party whose service is suspended shall remain liable for any Charges in respect of the suspended Service throughout the period of suspension.
- 23.3 Notwithstanding Clause 23.1, neither Party may terminate this Agreement during a dispute in respect of any Service unless authorised to do so by the Authority, a dispute settlement arbitrator or a court of law.

24. Effects of Termination

- 24.1 Termination or expiry of this Agreement shall be without prejudice to the rights and obligations of the Parties accruing prior to such termination and such termination shall not affect the continuance in force of any provision of this Agreement which is expressly or by implication intended to continue in force (including but not limited to Clauses 1, 9, 11, 18, 20, 24, 26 and Paragraph 2.3.2.6 of the Joint Working Manual).
- 24.2 Termination or expiry of this Agreement shall not operate as a waiver of any breach by a Party of this Agreement and shall be without prejudice to any rights, liabilities or obligations of either Party which have accrued up to the date of termination.

25. Force Majeure

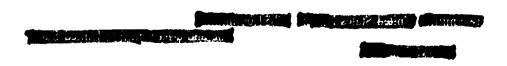
25.1 Neither Party shall be liable to the other for any delay or failure to perform or observe any provision of this Agreement by reason of Force Majeure if the Party experiencing the Force Majeure circumstance makes reasonable efforts to remove or overcome the effects of such circumstance. A Party shall be relieved of its obligations under this



- Agreement by reason of Force Majeure only for the period of time during which the Force Majeure circumstance applies.
- 25.2 The Party affected by any Force Majeure shall promptly within 24 hours notify the other of the estimated extent and duration of its inability to perform its obligations under this Agreement. Upon cessation of the delay or failure resulting from Force Majeure, the Party affected shall promptly notify the other of such cessation.
- 25.3 If, as a result of Force Majeure, performance by either Party of its obligations under this Agreement is only partially affected, that Party shall nevertheless remain liable for the performance of those obligations not affected by Force Majeure.
- 25.4 If the Force Majeure lasts for six months or less from the date of any notification under Clause 25.2, any obligation outstanding shall be fulfilled by the Party affected as soon as possible after cessation of the Force Majeure, save to the extent that such fulfilment is no longer practically possible or is not required by the other Party.
- 25.5 If the Force Majeure lasts for more than six months from the date of any such notification and notice of cessation has not been given and such 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 thirty (30) days written notice to the other after expiry of such six month period, unless notice of cessation of the Force Majeure is received by the unaffected Party prior to the expiry of such thirty (30) days notice. If this Agreement is not so terminated under the provisions of this Clause 25, any obligations outstanding shall be fulfilled by the Party affected by the Force Majeure as soon as possible after the Force Majeure has ended, save to the extent that such fulfilment is no longer possible or is not required by the other Party.

26. Liability

- 26.1 Neither Party excludes or restricts its liability for death or personal injury resulting from its own negligence or the negligence of its employees or agents while acting in the course of their employment or agency.
- 26.2 In the performance of its obligations under this Agreement, each Party shall exercise all the reasonable care and skill of a competent operator.
- 26.3 Subject to sub clause 26.1, the liability of each Party to the other in contract, tort (including negligence and breach of statutory duty) or otherwise arising by reason of or in connection with this Agreement shall be limited, to the extent permitted by law, to for any one incident or series of events arising from a single incident and to Dollars for all incidents or series of events occurring within any twelve month period. Such limitation shall not apply to the obligations of either Party to make payments to the other in the ordinary course of business.
- 26.4 Subject to sub clause 26.1, neither Party shall be liable to the other in contract, tort (including negligence and breach of statutory duty) or otherwise for indirect or



- consequential loss or damage. For these purposes, the expression "indirect or consequential loss or damage" shall include but not be limited to loss of revenue, profit, anticipated savings or business.
- 26.5 Notwithstanding the provisions of this Clause 26 nothing in this Agreement shall exclude or limit the liability of one Party to the other arising out of that Party's fraud or fraudulent misrepresentation, wilful act or wilful omission.
- 26.6 Subject to sub clause 26.1, neither Party (for the purposes of this clause, the "First Party") shall be liable to the other Party for any losses, demands, damages or liabilities arising from any claims, proceedings or actions brought or made against that other Party by any person pursuant to a contractual or other relationship of that person with that other Party. The provisions of this sub clause shall apply notwithstanding that such claims, proceedings or actions arise through the acts or omissions of the First Party
- 26.7 Subject to Clause 26.8, each Party ("the Indemnifying Party") shall indemnify the other ("the Indemnified Party") against all liability or loss arising directly from, and any reasonable cost, charge or expense incurred in connection with:
 - a) damage to or loss of any Telecommunications Apparatus or other property of the Indemnified Party caused by the negligence or wilful acts or omissions of the Indemnifying Party or its employees, directors, representatives or agents arising out of or in connection with this Agreement; and
 - b) any action, claim, suit or demand by any person against the Indemnified Party in respect of or arising out of any negligence of the Indemnifying Party in the course of providing services to the Indemnified Party.
- 26.8 If any action, claim, suit or demand ("claim") is made by any person against the Indemnified Party which, if satisfied or paid by the Indemnified Party, would result in liability by the Indemnifying Party under the indemnity set out in Clause 26.7:
 - a) the Indemnified Party must give written notice of the claim to the Indemnifying Party as soon as practicable after the making of the claim; and
 - b) within thirty (30) days after receipt of that notice, the Indemnifying Party must:
 - i) cause the Indemnified Party to be put in sufficient funds to satisfy or pay the claim; or
 - ii) give notice to the Indemnified Party directing it to take such action (including legal proceedings) in respect of the claim as notified at the Indemnifying Party's expense; and
 - c) the Indemnifying Party must cause the Indemnified Party to be put, and therefore maintained, in sufficient funds in sufficient time to pay all



reasonable costs and expenses of any action or settlement directed by the Indemnifying Party under Clauses 26.8(b) and 26.8(d) and

d) the Indemnified Party:

- i) must take such action as the Indemnifying Party reasonably directs to avoid, dispute, defend, appeal, settle or compromise ("deal with") the claim and any adjudication thereof; provided that the Indemnifying Party has advanced sufficient funds to sustain the action or defense or deposited same in escrow for this purpose and
- ii) must not deal with the claims except as directed by the Indemnifying Party.

27. Relationship of the Parties

- 27.I In giving effect to this Agreement, the relationship of the Parties to each other shall be that of independent contractors. Nothing in this Agreement shall be construed as or shall constitute the relationship of the Parties as an agency, partnership, franchise, employment, joint venture or other joint venture relationship between the Parties.
- 27.2 No Party shall have the right to enter into contracts or pledge the credit of or assume or incur expenses or liabilities or any obligation of any kind (including but not limited to the making of any representation or warranty), express or implied, on behalf of the other Party unless otherwise expressly permitted by such other Party, in writing.
- 27.3 The only Parties to this Agreement are Digicel and CCTL.
- 27.4 This Agreement confers benefits and imposes burdens only upon the Parties to this Agreement and does not confer any benefit of any kind whatsoever or impose any burden of any kind whatsoever upon any person or entity who is not a Party.
- 27.5 Subject to any express provision of this Agreement to the contrary, this Agreement does not provide any person or entity who is not a Party with any remedy, defence, claim, action, claim of action or other right of any kind, or impose any liability upon such person that that person did not have before this Agreement commenced.

28. Representations of the Parties

- 28.1 Each Party represents that it is now and will remain in compliance with all laws, regulations, and orders applicable to its performance of its obligations under this Agreement. Each Party shall promptly notify the other Party in writing of any governmental or regulatory action that suspends, cancels, withdraws, limits or otherwise materially affects its ability to perform its obligations under this Agreement.
- 28.2 Each Party represents and warrants to the other that it:
 - a) is a limited liability company duly incorporated or continued and validly existing under the laws of Trinidad and Tobago and has all necessary

corporate power and capacity to own its properties and carry on its business in Trinidad and Tobago as presently carried on and is duly licensed, registered or qualified under the relevant company or corporate legislation in all jurisdictions where the character of its property owned or leased or the nature of the activities conducted by it makes such licensing, registration or qualification necessary or desirable;

- b) has all necessary corporate power, authority and capacity to enter into this Agreement and to carry out its obligations in accordance with their terms subject to necessary regulatory approval, and that the execution and delivery of this Agreement have been duly authorised by all necessary corporate action on its part; and
- c) is duly qualified to act as a Public Telecommunications Network Concessionaire under the Act and shall hold all valid concessions, licences or permits as deemed or granted under the Act to establish and operate telecommunications networks, and to provide the Services as specified in this Agreement.

29. Severability

- 29.1 The individuality or enforceability for any reason of any part of this Agreement shall not prejudice or affect the validity or enforceability of the remainder of this Agreement.
- 29.2 If further lawful performance of this Agreement or any part hereof shall be rendered impossible by the final judgement or final order of any court of competent jurisdiction, Authority or governmental agency or similar authority having jurisdiction over either Party, the Parties undertake that they will exert their best efforts to agree on an amendment or amendments to this Agreement or on modifications of their practices hereunder in such manner as will fully comply with such judgement or Order and render further performance lawful.
- 29.3 The enforceability of all rights or obligations of the Parties under this Agreement or the portion thereof judged invalid, illegal or otherwise unenforceable by such judgement or Order, shall be suspended as from the date thereof pending the outcome of negotiations between the Parties as aforesaid though without prejudice to all or any accrued rights of the Parties in respect of the past performance or observance thereof.

30. No Waiver

- 30.1 Failure or delay by either Party at any time to enforce any of the provisions of this Agreement shall not be construed by the other as a waiver of any such provision nor in any way affect the validity of this Agreement or any part thereof.
- 30.2 Subject to Clause 22.4, no variation, modification or waiver of any provisions of this Agreement shall in any event be of any force or effect, unless the same is in writing signed by each of the Parties hereto.



prevent a Party from using other internal dispute resolution procedures to settle the matter agreed to by the Parties in writing up to and until the resolution of the dispute by the Authority.

- 34.3 Nothing herein shall prevent a Party from:
 - 34.3.1 Seeking (including obtaining or implementing) interim relief in circumstances where the Party is, or will immediately be, subject to a pressing and substantial harm due to the conduct of the other Party. Notwithstanding any application for interim relief, the Parties shall resolve the substantive issue in dispute in accordance with this Clause; and
 - 34.3.2 Seeking recourse from the High Court of the Republic of Trinidad and Tobago subject to the conclusion of either 34.1.3 or 34.1.4 above.34.2.3 Using other dispute resolution procedures agreed to by the Parties in writing;
- For greater certainty, this process shall not apply to the resolution of faults pursuant to Paragraph 2.5.4 of the Joint Working Manual.

35. Publicity

- 35.1 Subject to clause 35.2 below, the Parties shall maintain in strict confidence and not disclose publicly or to any third party, the subject matter or substance of any discussions or negotiations between them, the terms of any proposed arrangements or agreements, or any other information relating thereto unless it has first consulted the other Party and obtained its written consent, such consent not to be unreasonably withheld. The Parties agree that each shall not, and shall not permit any of its affiliates, subsidiaries, persons, or other entities or their professional advisers to make any public announcements about the subject matter or substance of any discussions regarding such arrangements or agreements and any other business and operating plans being discussed or negotiated, whether in the form of press release or otherwise, without first consulting with the other Party and obtaining its written consent.
- 35.2 Clause 35.1 shall not apply to information that is:
 - (a) in the possession of the receiving party prior to receipt from the disclosing party; or
 - (b) becomes publicly known, otherwise than as a consequence of a breach of this Agreement;
 - (c) disclosed by the receiving party to the Telecommunications Authority of Trinidad and Tobago;
 - (d) disclosed by the receiving party to satisfy a legal demand by a competent court of law or governmental body having jurisdiction over the Parties, or valid legal requirements of any applicable stock exchange, provided however, that

in these circumstances the receiving party shall advise the disclosing party prior to disclosure so that the disclosing party has an opportunity to defend, limit or protect against such production or disclosure; provided further that the receiving party shall disclose only that portion of any confidential information which is legally required to be disclosed;

- (e) disclosed to a third party pursuant to written authorisation from the disclosing party;
- (f) received from a third party without similar restriction and without breach of this Agreement.

36. Insurance Provisions

- 36.1 Each Party must maintain during the term of this Agreement a valid and enforceable public and product liability insurance policy providing coverage of at least
 - a) in respect of any one incident and in the aggregate for public liability; and
 - in respect of any one incident and in the aggregate for product liability.

in respect of any twelve month period.

- 36.2 The policy shall cover those insurable liability risk exposures arising under or in respect of this Agreement, including liability with respect to intellectual property rights infringement as more fully described in clause 20
- 36.3 A separate policy of fidelity coverage for losses incurred as a result of dishonesty on the part of the Party's employees, agents, contractors or other personnel shall also be main
- 36.4 Such insurance shall be effected with a reputable insurance company authorised to carry on business in Trinidad and Tobago and reasonably satisfactory to the Parties, in the joint names of Lingicel and CCTL for their respective interests.
- 36.5 Whenever requested by either Party, the other Party shall promptly provide a certificate squed by the relevant insurer stating that a policy in the amounts set forth in this agreement for the named insured is in effect.

37. Governing law and Jurisdiction

This Agreement shall be governed by and construed and interpreted in accordance with the laws of Trinidad and Tobago.

38. Counterparts

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This Agreement may be executed in counterparts, all of which shall constitute one agreement, and each such counterpart shall be deemed to have been made, executed and delivered on the date set out at the head of this Agreement, without regard to the dates or times when such counterparts may actually have been made, executed or delivered.

IN WITNESS WHEREOF the duly authorised representative of Columbus Communications Trinidad Limited has hereunto set his hand the day of, 2013 and the duly authorised representative of Digicel (Trinidad & Tobago)

Brien Colles SIGNED by of Columbus and behalf **Communications Trinidad Limited** in the presence of :-)

COLUMBUS COMMUNICATIONS

TRINIDAD LIMITED

OBL NEW Witness Name:

)

)

)

C10 29 Victoria Square Director Regulatory Highers Witness Address:

Witness Occupation:

GERARO ASHMORE SIGNED by JOHN DELVES

for and on behalf of Digicel

(Trinidad & Tobago) Limited

in the presence of:-

Witness Signature:

Witness Signature:

Witness Name:

Witness Address:

Witness Occupation

IOHN DEÌ

GABRINA LEE-JOHN HE MAKANAL RO, St. CLAIR

LEGAL & REQULATORY ADVISOR

Digicel

Interconnection Agreement with Columbus Communications Trinidad Limited

Definitions - Schedule 1

PRIVATE & CONFIDENTIAL



Definitions – Schedule 1

Acceptance Testing The process described in Paragraph 2.4 of the Joint Working Manual

Act The Telecommunications Act, 2001

Answer Message An ISUP answer message (ANM)

Answered Call A call where an Answer Message has been received

Associated Company An "affiliated company" as that term is defined in section 5 of the Companies

Act

Authority The Telecommunications Authority of Trinidad and Tobago

Automatic Call

Distributor or ACD

System

A switch that queues and distributes incoming Calls so that the Call which has been waiting the longest is sent to the next available operator and the operator who has been waiting the longest is sent the next available Call

Automatic Number The billing telephone number associated with the access line from which a call originates. ANI and CLI are usually the same

Billing Data Information in respect of Calls passed across the Point of Connection during the

relevant Billing Period as more particularly described in the Joint Working

Manual

Billing Period The monthly period ending on the last day of every month

Business Day A day, Monday through Friday, that is a normal working day for Government

offices in Trinidad and Tobago

Call The set-up, holding and ending of a transmission path through the System of

either Party into the System of the other Party for conveyance of Messages within 3.1 KHz speech service in accordance with the technical specifications set out in Joint Working Manual and reference to the conveyance of Calls by a Party means the establishment by that Party of a transmission path through that Party's System and the conveyance by that Party in accordance with this

Agreement of a Message (if any) over such transmission path

Call Availability Has the meaning given to it in Paragraph 1.6.5.1 of the Joint Working Manual

Call Duration Period between Call Start and Call End

Call End The point during a Call at which an ISUP release message (REL) is received by

the Service Supplier System or Service Taker System, as the context requires

Call Setup The signalling activities required to set up a Call

Call Setup Charge The charge to perform a Call Setup

Call Start The point during a Call Setup at which an Answer Message is received by the

Service Supplier System or Service Taker System, as the context requires

Carrier System A point to point transmission facility operating at 155 Mbit/s whose sole

purpose is to provide T1, 1.544Mbit/s, Network Links between a Service Supplier Circuit Termination Unit and a Service Taker Circuit Termination Unit. It incorporates the multiplexing and de-multiplexing of T1 bearer services

Carrier System Fault Has the meaning given to it in Paragraph 2.5.1.2 of the Joint Working Manual

CCS The unit of telecommunications traffic measurement, amounting to one hundred

call seconds

CCTL System The Telecommunications System established and operated by CCTL pursuant

to its Concession

CDRs Call Detail Records

Charges

The amounts specified in the Tariff Schedule and described in the Service Descriptions which are payable pursuant to Clause 9

Circuit Termination Unit or CTU

A technical unit terminated and which has the technical specifications set out in the Joint Working Manual

Claim

Has the meaning given to in Clause 26.6

CLI (Calling Line Identification)

The SS7 out of band signalling parameter which automatically transmits the directory number associated with the Subscriber Connection from which a Call is generated, to the called customer

Concession

Has the meaning ascribed to it in the Act

Concessionaire

The holder of a Concession

Confidential Information Any information, in whatever form, which:

- (i) in the case of written or electronic information is clearly designated as confidential and which in the case of information disclosed orally is identified at the time of disclosure as being confidential or
- (ii) is by its nature confidential (including but not limited to all information (excluding CLI), know-how, ideas, concepts, technology, manufacturing processes, industrial processes, billing information, marketing and commercial knowledge of a confidential nature (whether in tangible or intangible form) relating to or developed in connection with or in support of the business, of either Party within Trinidad and Tobago) and including such Confidential Information already disclosed by either Party to the other prior to the date of this Agreement, but excluding any information:
 - (a) Which is or becomes part of the public domain (other than through any breach of this Agreement or any obligation of confidence); or
 - (b) Rightfully received by one Party from a third person without a duty of confidentiality being owed by the other Party to the third person, except where the other Party knows or ought reasonably to know that the third person has obtained that information either directly or indirectly as a result of a breach of a duty of confidence owed to the first mentioned Party; or
 - (c) Which has been independently developed by another Party; or
 - (d) Which is in the possession of or is known by the Receiving Party prior to its receipt from the Disclosing Party;
 - (e) Which is disclosed to satisfy a legal demand by a court of competent jurisdiction or by a government agency, provided
 - the Disclosing Party requests to the court or the government agency that it keep such information confidential; and
 - informs the other Party of such demand as soon as reasonably
 possible to permit said Party to take such actions (including
 seeking injunctive relief) to protect the confidentiality of all or
 part of such information and disclosure is only made to the
 extent required; or
 - (f) which is authorised to be disclosed by the Disclosing Party in writing to the Receiving Party to the extent of that authority; or
 - (g) which is disclosed to obtain or maintain any listing on a recognised stock exchange subject to the Receiving Party informing the Disclosing Party as soon as reasonably practicable after such disclosure:
 - (h) which is disclosed to the Authority

(for

Critical Link Failure Has the meaning given to it in Paragraph 2.5.1.5 of the Joint Working Manual Critical Route Failure Has the meaning given to it in Paragraph 2.5.1.5 of the Joint Working Manual CTU Patch Panel The interface between the CTU multiplexing equipment and the respective Frame Service Supplier/Service Taker switch Customer Facing A division which deals directly with Subscribers and includes those responsible Division for sales and marketing of Digicel services. Deal with Has the meaning given to it in Clause 26.8 Dial Set-up Delay Has the meaning given to it in Paragraph 1.6.6 of the Joint Working Manual Digicel System The Telecommunications System established and operated by Digicel pursuant to its Concession. Disclosing Party A Party disclosing Confidential Information to the other Party Domestic Fixed to The service of that name more particularly described in the Service Descriptions Mobile Service Early Termination The amount set out in the Tariff Schedule and chargeable pursuant to Paragraph Charge 2.3.2.6 of the Joint Working Manual Electromagnetic A set of requirements more particularly described in Paragraph 1.3.5 of the Joint Compatibility (EMC) Working Manual that define the maximum radiation for equipment against international standards Erlang A unit used to denote the utilisation of a telecommunications system expressed as a single hour measurement or a total of single hour measurements, usually during a busy hour Error Free Seconds A second which is not an Errored Second or a Severely Errored Second Errored Second Has the meaning given to it in Paragraph 1.4.1.3 of the Joint Working Manual Fatal Fault Has the meaning given to it in Paragraph 4.8.1.2 of the Joint Working Manual Fault A fault on a Party's System Fault Control Centre or The fault control centre more particularly described in Paragraph 2.5.2.1 of the Joint Working Manual A person with the responsibilities outlined in Paragraph 2.2.1.1 of the Joint Fault Control Manager Working Manual Fault Log Number A log number given to a Fault in accordance with Paragraph 2.5.2.2 of the Joint Working Manual Fault Owner The Party who is responsible for clearing a Fault Fault Receiving Party The Party who is in receipt of a Fault report Fault Reporting Party The Party who has reported a Fault Fault Restoration The times for restoration of a service as more particularly described in the Joint Times Working Manual and Parameter Schedule **Final Forecast** A Forecast accepted and signed off by both parties Final Test Report The log of interconnection tests produced in accordance with Chapter 4 of the Joint Working Manual First Live Traffic The third phase of interconnect testing as more particularly described in Chapter 4 of the Joint Working Manual

A Call from the PSTN to a PLMN in Trinidad and Tobago

Fixed to Mobile Call

Any circumstances outside the reasonable control of a Party, including (without Force Majeure

limitation), officially declared national disasters, insurrection or civil disorder, war or military operations, national or local emergency, currency fluctuations, acts or omissions of government, act of God, fire, earthquake, hurricane, flood, lightning or explosion, outbreak of pestilence or epidemics, government

rationing of electricity and embargos or trade restrictions

Forecast A quantitative prediction made by the Service Taker for the Services required

from the Service Supplier over an agreed period in accordance with the

provisions of the Joint Working Manual

Forecasting Meetings The meetings more particularly described in Paragraph 2.2.2.3 of the Joint

Working Manual

Imperfections Faults identified in testing which are more particularly described in Paragraph

4.8.1.6 of the Joint Working Manual

Inadmissible Fault A fault identified in testing which is more particularly described in Paragraph

4.8.1.3 of the Joint Working Manual

Indemnified Party Has the meaning given to it in Clause 26.7

Indemnifying Party Has the meaning given to it in Clause 26.7

Individual Location The first phase of testing as more particularly described in chapter 4 of the Joint Tests

Working Manual

Intellectual Property Letters patent, utility models, semi-conductor topographies, registered designs, Rights (IPR) design rights and copyrights, trade and service marks, trade names, rights in

logos and get up, inventions, trade secrets and know-how, all rights of whatsoever nature in computer software and data, all rights of privacy and all intangible rights and privileges of a similar nature, in every case in any part of the world and whether or not registered and including all granted registrations

and all applications for registration in respect of any of the same

The set of CCTL PSTN / Digicel network numbering prefixes specified in the Interconnect Access Area Service Schedule which are supported by the CCTL / Digicel Interconnect

Switch Location and designated other switches

Interconnect Point of A location which is part of the CCTL/Digicel System and which is specified in Presence (IPOP) the Service Schedule as a location at which CCTL/Digicel will connect to the

Digicel/CCTL System

Interconnect A log of interconnection issues that is used to keep track of interconnect issues Resolution Log and their status as more particularly described in Paragraph 2.2.5 of the Joint

Working Manual

Interconnect Specific Charges that represent overhead recurring costs of interconnection, except for

Charge depreciation charges which have been deferred

Interconnect Switch A switch location which is part of the CCTL/Digicel System and which is Location (ISL) specified in the Service Schedule as a location at which CCTL/Digicel will

connect to the Digicel/CCTL System

Internally Detected Faults that a Party detects within its own network

Faults

IP Indemnified Party Has the meaning given to it in Clause 20.2

IP Indemnifying Party Has the meaning given to it in Clause 20.2

IP Owner Has the meaning given to it in Clause 20.3

Joint Working Manual The name given to the document at Schedule 5 of this Agreement

Liaison Manager The representative with the role set out in Paragraph 2.2.1.1 of the Joint Working

Manual

Major Link Failure

Has the meaning given to it in Paragraph 2.6.1.2 of the Joint Working Manual

Has the meaning given to it in Paragraph 2.5.1.5 of the Joint Working Manual

Has the meaning given to it in Paragraph 2.5.1.5 of the Joint Working Manual

Messages 3.1Khz speech and the associated CCSS7 protocol used to convey the call setup.

3.1 Khz speech and the associated CCSS7 protocol used to convey the call setup, cleardown and supplementary service information for such messages

Minister The Minister to whom responsibility for telecommunications is assigned as

specified in the Act

Minor Route Failure Has the meaning given to it in section 2.5.1.5 of the Joint Working Manual

Monthly Recurring A Charge, set out in the Tariff Schedule, that is payable monthly in accordance

Charge with Clause 9 and the relevant Service Description

National Numbering The numbering regime for Trinidad and Tobago geographic and non-geographic numbers including the NXX national prefixes and local number portion.

Plan numbers including the NXX national prefixes and local number portion

Network Fault

A Fault of the type more particularly described in Paragraph 2.5.1.1 of the Joint

Working Manual

Network Integration The second phase of interconnect testing described in Chapter 4 of the Joint

Working Manual

Network Link Uni-directional T1 transmission facilities within a 155 Mbit/s Carrier System

Network Link Availability

Tests

Has the meaning given to it in Paragraph 1.4.1.2 of the Joint Working Manual

Non – Service Affecting The Faults more particularly described in Paragraph 2.5.1.4 of the Joint Working or NSA Manual

NPA A geographic division within which no two (2) telephones will have the same

seven (7) digit number

NXX The current general configuration for exchange codes within each NPA

One-off Charges Charges that are generally non-recurring and specified in the Tariff Schedule

One-Switch Rate Tariff The One-Switch Rate Charges specified in the Tariff Schedule

Operational Field Trial The fourth phase of interconnect testing as described in Chapter 4 of the Joint

Working Manual

Operational Meetings The meetings more particularly described in Paragraph 2.2.2.8 of the Joint

Working Manual

Operations Manager The representative with the responsibilities referred to in Paragraph 2.2.1.1 of

the Joint Working Manual

Operator Service A service that includes input from an operator in a Call Centre

Optical Fibre A high capacity transmission medium used for telecommunications

transmission

Order A request for the provision of services pursuant to this Agreement and in the format set out in the Joint Working Manual Order Plan A plan detailing the ordered services for a period of a Quarter, agreed and signed by both Parties in accordance with the Joint Working Manual Order Planning The meetings more particularly described in Paragraph 2.2.2.4 of the Joint Working Manual Meetings Has the meaning given to it in Paragraph 2.5.2.5 of the Joint Working Manual Other Affected Party The representative with the responsibilities outlined in Paragraph 4.9.1.3 of the Overall Test Manager Joint Working Manual Parameter Schedule The name given to the document in Schedule 4 of this Agreement Party Either Digicel or CCTL in this Agreement, according to context Penalty Charger Has the meaning given to it in Paragraph 2.3.7.1 of the Joint Working Manual Penalty Payer Has the meaning given to it in Paragraph 2.3.7.1 of the Joint Working Manual Performance Reports The reports submitted on a monthly basis more particularly described in section 2.2.4 of the Joint Working Manual Planned Maintenance Maintenance falling within the description in Paragraph 2.6.1.1 of the Joint Planning Manager A representative with the responsibilities outlined in Paragraph 2.2.1.1 of the Joint Working Manual PLMN Public Land Mobile Network PLMN Terminating The Service of that name as more particularly described in the Service Access Service Descriptions Point of Connection A physical point between the Systems of the Parties to this Agreement at which the provision of and responsibility for a Service starts or ends Point of Handover A physical point between the System of one of the Parties to this Agreement and the System of a Third Party Telecom Provider at which the provision of and responsibility for a Service starts or ends Project Manager A representative with the responsibilities outlined in Paragraph 2.2.1.1 of the Joint Working Manual Propagation Delay Has the meaning given to it in Paragraph 1.6.7.1 of the Joint Working Manual Provisional Forecast A forecast for all services that a Party requires in the role of Service Taker from the other Party in the role of Service Supplier for the ensuing two year period, covering traffic forecasts for all other requested services. Forecasts will be divided into eight quarters. The Provisional Forecast becomes a Final Forecast once agreed with the other Party PSTN The public switched telephone network **PSTN Subscriber** The point connected to the PSTN where a telecommunications service is made Connection available to a Subscriber **PSTN Terminating** The service of that name as more particularly described in the Service Access Service Descriptions **PSTN Transit Service** The service of that name as more particularly described in the Service Descriptions Public Has the meaning ascribed to it in the Act Telecommunications

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Network

Public A concession issued by the Minister to the operator of a Public **Telecommunications** Telecommunications Network in accordance with Part III of the Act Network Concession Public Has the meaning ascribed to it in the Act **Telecommunications** Service Public A concession to provide Public Telecommunications Services issued by the Telecommunications Minister in accordance with Part III of the Act Services Concession **Public** The holder of a concession to provide Public Telecommunications Services Telecommunications issued by the Minister in accordance with Part III of the Act Services Concessionaire Quality of Service The standard to which a service will be provided Quarter The three month period commencing on I January, I April, I July and I October respectively The date, specified in the Order Plan or as otherwise agreed between the Parties, Ready for Service Date on which a Service will be ready for use Ready for Test Date The date, specified in the Order Plan or as otherwise agreed between the Parties, on which a Service will be ready for Network Interconnection Testing Receiving Party A person receiving Confidential Information Has the meaning given to it in ETS 300 008 Release Message Response Time Has the meaning given to it in Paragraph 2.5.3.4 of the Joint Working Manual Restoration Times The times for restoration of a Fault detailed on a service by service basis in the Joint Working Manual and Parameter Schedule Service Affecting or The Faults more particularly described in Paragraph 2.5.1.2 of the Joint Working Manual Service Descriptions The name given to the document in Schedule 2 Service The meetings more particularly described in Paragraph 2.2.2.2 of the Joint Working Manual Implementation Meetings Service Quality A representative with the responsibilities outlined in Paragraph 2.2.1.1 of the Manager Joint Working Manual Service Schedule The name given to the document in Schedule 3 Service Supplier The Party who provides a Service as specified on a service by service basis in the Service Schedule. For the avoidance of doubt in the case of the freephone service the Service Supplier is the Party which provides the relevant freephone Service Switching A CCSS7 signalling facility in the Service Supplier/Service Taker System **Point**

> The Party who requests a Service as specified on a service by service basis in the Service Schedule. For the avoidance of doubt in the case of freephone services the Service Taker is the Party on whose network a call originates to a

Has the meaning given to it in Paragraph 1.4.1.4 of the Joint Working Manual

freephone access service.

PRIVATE & CONFIDENTIAL

Service Taker

Severely Errored

Second

Signalling Links	Α	64	kbit/s	transmission	path	provided	exclusively	for	the	exchange	of
	eic	nati	lina ma	ecanec hetsuna	n Cars	dative Switch	sina Dainte a	f the	Com	ion Taken	

ssages between Service Switching Points of the Service Taker and the Service Supplier as more particularly described in the Joint Working

Manual

SNC-P Sub-Network Connection Protection conforming to G.841

Spectrum Licence A licence to use spectrum issued by the Minister in accordance with Part IX of the

Subscriber An end user with whom one of the Parties to this Agreement or a Third Party

Telecom Provider has entered into an agreement for the provision of publicly

available telecommunication services

Subscriber Connection The point at which a Subscriber connects to the PSTN or a PLMN as the case

may be

Switch A facility which performs the function or is capable of performing the function of

switching and routing Messages between two or more points

System Telecommunications apparatus, including but not limited to switches, routers

and network links

Tariff Period A period of hours during which specific tariffs are applied namely peak rate,

off-peak rate and weekend

Tariff Schedule The name given to the document in Schedule 6 of this Agreement

Telecommunications Any facility, apparatus or other thing that is used or capable of being used for

telecommunications or for any operation directly connected with

telecommunications, and includes a transmission facility

Termination Services The services more particularly described in Part 2 of the Service Descriptions

Has the meaning given to in chapter 4 of the Joint Working Manual Test Control Board

Test Guidelines Has the meaning given to in chapter 4 of the Joint Working Manual

Test Report Has the meaning given to in chapter 4 of the Joint Working Manual

Test Sheet Has the meaning given to in chapter 4 of the Joint Working Manual

Has the meaning given to in chapter 4 of the Joint Working Manual Test Specification

Test Suite Has the meaning given to in chapter 4 of the Joint Working Manual

Third Party

International Telecom

Provider

Apparatus

A Telecom Provider licensed in a country outside of Trinidad and Tobago and providing services outside Trinidad and Tobago, other than a Service Supplier

or Service Taker

Third Party Mobile Telecom Provider

A Telecom Provider providing mobile services in Trinidad and Tobago that holds the necessary concessions, other than a Service Supplier or Service Taker

Third Party National

A Telecom Provider licensed to provide services in Trinidad and Tobago, other

Telecom Provider than a Service Supplier or Service Taker.

Third Party Telecom Provider

A licensed provider of telecommunication services other than the Parties to this Agreement, including (without limitation) a Third Party International Telecom Provider, a Third Party National Telecom Provider, a Third Party Mobile Telecom Provider, a National Freephone Service Provider and an International

Freephone Service Provider

Time Unit The accuracy to which the Call Duration is measured, which is one tenth of a

second

Transit Services The services more particularly described in Part 4 of the Service Descriptions

OF.

Trunk Group An assignment of service traffic into dedicated routes, having the characteristics

described in Paragraph 1.6.2 of the Joint Working Manual

Unsuccessful Call Attempt

A Call that has not been successfully Answered

Usage Charges The usage related charges that are specified in the Tariff Schedule

Verification Time Has the meaning given to it in Paragraph 2.5.3.7 of the Joint Working Manual

Unsuccessful Call
Attempt

A Call that has not been successfully Answered

Usage Charges

The usage related charges that are specified in the Tariff Schedule

Verification Time Has the meaning given to it in Paragraph 2.5.3.7 of the Joint Working Manual

Digicel

Interconnection Agreement with Columbus Communications Trinidad Limited

Service Descriptions – Schedule 2

PRIVATE & CONFIDENTIAL



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TERMINATION SERVICES

1 PSTN Terminating Access Service

1.1 Description

- 1.1.1 The PSTN Terminating Access Service will be provided by the Service Supplier to the Service Taker, in accordance with the terms and conditions of this Agreement.
- 1.1.2 The PSTN Terminating Access Service will provide conveyance of Calls originating on Service Taker Subscriber Connections via the Service Supplier PSTN from the Point Of Connection defined by the Joining Service to the applicable Service Supplier PSTN Subscriber Connections in Trinidad and Tobago. Such Calls must be addressed to valid number ranges associated with the Service Supplier PSTN Subscriber Connections.
- 1.1.3 The valid number ranges associated with the Service Supplier PSTN Subscriber Connections and associated ISL / IPOPs are listed in the Service Schedule. The list will be amended from time to time to include any additional numbers to which Calls are to be conveyed pursuant to this Service Description or to remove numbers. The process for adding or removing numbers is specified in the Joint Working Manual.
- 1.1.4 For the avoidance of doubt, Calls to numbers associated with Special Access Services are not conveyed pursuant to this Service Description. Calls originating or ultimately terminating outside of Trinidad and Tobago are not conveyed pursuant to this Service Description.
- 1.1.5 The PSTN Terminating Access Service can only be provided in conjunction with a Joining Service. Sufficient dedicated capacity must be in place within the Joining Service to handle the traffic in accordance with the Joint Working Manual.
- 1.1.6 The technical standards for voice telephony, operational processes and billing processes are described in the Joint Working Manual.

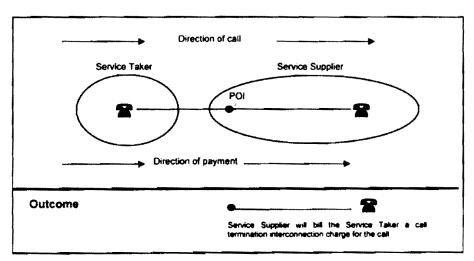


Figure 2 - Call originating in Service Taker's Network and terminating in Service Supplier's PSTN

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1.2 Service Specific Responsibilities

- 1.2.1 Without prejudice to the responsibilities described elsewhere in this Agreement, each Party shall have the responsibilities set out in this Paragraph 1.2 of this Service Description.
- 1.2.2 Service Supplier will be responsible for the metering and billing necessary to charge Service Taker for all Calls passed by Service Taker to the Service Supplier PSTN using the PSTN Terminating Access Service in accordance with the Joint Working Manual.
- 1.2.3 Service Supplier will be responsible for monitoring the service quality, managing and providing management information about the PSTN Terminating Access Service from the Point of Connection to the Service Supplier PSTN Subscriber Connection, in accordance with the Joint Working Manual. Service Taker will be responsible for monitoring the service quality, managing and providing management information about the PSTN Terminating Access Service from the Service Taker Subscriber Connection to the Point of Connection in accordance with the Joint Working Manual. For the avoidance of doubt, access to the Service Supplier's or Service Taker's management systems will not be provided.
- 1.2.4 Service Taker will be responsible for forecasting usage of the PSTN Terminating Access Service in accordance with the Joint Working Manual.
- 1.2.5 Service Taker will be responsible for validating the called number according to the National Numbering Plan and the valid number ranges associated with the PSTN Subscriber Connections in the Service Schedule. In accordance with Clause 8.2 of the Legal Framework, Service Supplier will be under no obligation to convey Calls pursuant to this Service Description that are not part of the applicable Service Supplier Numbering Ranges.
- 1.2.6 Service Taker will be responsible for managing any end-to-end services provided by Service Taker to Service Taker Subscriber Connections that use the PSTN Terminating Access Service.

1.3 Quality of service

- 1.3.1 In accordance with Clause 15 of the Legal Framework, Service Supplier will provide the PSTN Terminating Access Service twenty four (24) hours per day, every day, to the Quality of Service levels set out in the Joint Working Manual and Parameter Schedule.
- 1.3.2 Quality of Service levels and Fault Restoration Times for the PSTN Terminating Access Service will be measured and reported in accordance with the Joint Working Manual and Parameter Schedule. Service Supplier and Service Taker will periodically review the achieved quality parameters in accordance with the Joint Working Manual.

1.4 Configuration

- 1.4.1 The PSTN Terminating Access Service will be available at the CCTL ISL and Digicel IPOPs specified in the Service Schedule.
- 1.4.2 Service Taker will deliver traffic in Trunk Groups at each Point of Connection where the PSTN Terminating Access Service is offered and required and will route Calls in

accordance with the routing scheme and principles described in the Joint Working Manual and the Parameter Schedule.

1.5 Charges

- 1.5.1 The tariffs for Charges for the PSTN Terminating Access Service are specified in the Tariff Schedule.
- 1.5.2 The charges for the PSTN Terminating Access Service are payable in accordance with Clause 9 of the Legal Framework, can be varied in accordance with Clause 10 of the Legal Framework and are in addition to any other Charges payable for Services provided pursuant to this Agreement. Charges are the sum of applicable Usage Charges.
- 1.5.3 Usage Charges include:
 - Call Duration Charges depending on duration.
- 1.5.4 The Tariff for Usage Charges will apply to Answered Calls where Service Taker routes the Call to a Service Supplier ISL / IPOP in the Interconnect Access Area where the Service Supplier PSTN Subscriber Connection is located.
- 1.5.5 The duration of an Answered Call will be measured from Call Start to Call End. The duration of an Answered Call will be logged by the Service Supplier. The number of Time Units that shall apply will be calculated by the Service Supplier. For each Answered Call, the duration will be measured to an accuracy of a Time Unit.
- 1.5.6 If the provision of Signalling Links is consistent with the dimensioning rule specified in the Joint Working Manual, the tariffs will include all charges for the handling of signalling messages required based on the specification of this Service.
- 1.5.7 For the avoidance of doubt, the Tariff Schedule does not include any sums that may be payable by Service Taker as a result of inaccurate forecasts of the PSTN Terminating Access Service and for delays to provisioning and acceptance testing. Any such sums will be calculated and charged for in accordance with the Joint Working Manual. Neither does it include any sums that may be payable pursuant to Clause 8.2.

End of Service Description –



2 PLMN Terminating Access Service

2.1 Description

- 2.1.1 The PLMN Terminating Access Service will be provided by the Service Supplier to the Service Taker, in accordance with the terms and conditions of this Agreement.
- 2.1.2 The PLMN Terminating Access Service will provide conveyance of Calls which originate on a Service Taker PLMN or PSTN Subscriber Connection from the Point of Connection defined by the Joining Service to Service Supplier PLMN Subscriber Connections in Trinidad and Tobago, via the Service Supplier PLMN, and PSTN where appropriate. The PLMN Terminating Access Service will provide conveyance of Calls originating on Service Taker Subscriber Connections in Trinidad and Tobago, or from Subscriber Connections of a Third Party National Telecoms Provider in Trinidad and Tobago conveyed pursuant to the PSTN Transit Service. Calls must be addressed to valid number ranges associated with the Service Supplier PLMN Subscriber Connections in Trinidad and Tobago. Calls originating or ultimately terminating outside of Trinidad and Tobago are not conveyed pursuant to this Service Description.
- 2.1.3 The valid number ranges associated with the Service Supplier PLMN Subscriber Connections are listed in the Service Schedule. The list will be amended from time to time to include any additional numbers to which Calls are to be conveyed pursuant to this Service Description or to remove numbers. The process for adding or removing numbers is specified in the Joint Working Manual.
- 2.1.4 The PLMN Terminating Access Service can only be provided in conjunction with a Joining Service. Sufficient dedicated capacity must be in place within the relevant Joining Service to handle the traffic in accordance with the Joint Working Manual.
- 2.1.5 The technical standards for voice telephony, operational processes and billing processes are described in the Joint Working Manual.

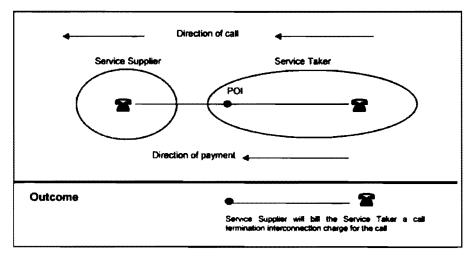


Figure 3 - Call originating in Service Taker's Network and terminating in Service Supplier's PLMN

2.2 Service Specific Responsibilities

- 2.2.1 Without prejudice to the responsibilities described elsewhere in this Agreement, each Party shall have the responsibilities set out in this Paragraph 1.2 of this Service Description.
- 2.2.2 Service Supplier will be responsible for the metering and billing necessary to charge Service Taker for all Calls passed by Service Taker to the Service Supplier PLMN using the PLMN Terminating Access Service in accordance with the Joint Working Manual.
- 2.2.3 Service Supplier will be responsible for monitoring service quality, managing and providing management information about the PLMN Terminating Access Service from the Point of Connection to the Service Supplier PLMN Subscriber Connection and Service Taker will be responsible for monitoring the service quality, managing and providing management information about the PLMN Terminating Access Service from the Service Taker Subscriber Connection or Point of Handover (as the case may be) to the Point of Connection in accordance with the Joint Working Manual. For the avoidance of doubt, access to the Service Supplier's or Service Taker's management systems will not be provided.
- 2.2.4 Service Taker will be responsible for forecasting usage of the PLMN Terminating Access Service in accordance with the Joint Working Manual.
- 2.2.5 Service Taker will be responsible for validating the called number according to the National Numbering Plan and the valid number ranges associated with the PLMN Subscriber Connections in the Service Schedule. In accordance with Clause 8.2 of the Legal Framework, Service Supplier will be under no obligation to convey Calls pursuant to this Service Description that are not part of the applicable Service Supplier Numbering Ranges.
- 2.2.6 Service Taker will be responsible for managing any end-to-end Services provided by Service Taker to Service Taker Subscriber Connections that use the PLMN Terminating Access Service.

2.3 Quality of Service

- 2.3.1 In accordance with Clause 15 of the Legal Framework, Service Supplier will provide the PLMN Terminating Access Service 24 hours/day, every day, to the Quality of Service levels set out in the Joint Working Manual and Parameter Schedule.
- 2.3.2 Quality of Service levels and Fault Restoration Times for the PLMN Terminating Access Service will be measured and reported in accordance with the Joint Working Manual and Parameter Schedule. Service Supplier and Service Taker will periodically review the achieved quality parameters in accordance with the Joint Working Manual.
- 2.3.3 For Calls that have been transited through the Service Taker network, Service Taker is not responsible for the quality of the Third Party Fixed Telecoms Provider or the Third Party Mobile Telecom Provider involved in conveyance of the Call prior to the Point of Handover.

2.4 Configuration

2.4.1 The PLMN Terminating Access Service will be available at the Service Supplier ISL/IPOP(s) specified in the Service Schedule.

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- 2.4.2 Service Taker will deliver traffic in Trunk Groups at each Point of Connection where the PLMN Terminating Access Service is offered and required and will route Calls in accordance with the routing scheme and principles described in the Joint Working Manual and the Parameter Schedule.
- 2.5 Charges
- 2.5.1 The tariffs for the charges for the PLMN Terminating Access Service are specified in the Tariffs Schedule.
- 2.5.2 The Charges for the PLMN Terminating Access Service are payable in accordance with Clause 9 of the Legal Framework, can be varied in accordance with Clause 10 of the Legal Framework and are in addition to any other Charges payable for Services provided pursuant to this Agreement. Charges are the sum of applicable Usage Charges.
- 2.5.3 Usage Charges include:
 - Call Duration Charges depending on duration
- 2.5.4 The duration of an Answered Call will be measured from Call Start to Call End. The duration of an Answered Call will be logged by Service Supplier and the number of Time Units that shall apply will be calculated by Service Supplier. For each Answered Call, the duration will be measured to an accuracy of a Time Unit.
- 2.5.5 If the provision of Signalling Links is consistent with the dimensioning rule specified in Joint Working Manual, the tariffs will include all charges for the handling of signalling messages required based on the specification of this Service.
- 2.5.6 For the avoidance of doubt, the Tariffs Schedule does not include any sums that may be payable by the Service Taker as a result of inaccurate forecasts of the PLMN Terminating Access Service and for delays to provisioning and acceptance testing. Any such sums will be calculated and charged for in accordance with the Joint Working Manual. Neither does it include any sums payable pursuant to Clause 8.2 of the Legal Framework. For greater certainty, and notwithstanding Clause 9.2 of the Legal Framework, Calls from Service Supplier PLMN Subscriber Connections to Service Taker Subscriber Connections incur the Charges set out in the Interconnection Agreement for PSTN Terminating Access Service.

- End of Service Description

SPECIAL ACCESS SERVICES

3 National Freephone Access Service

3.1 Description

- 3.1.1 The National Freephone Access Service will be provided by the Service Supplier to the Service Taker, in accordance with the terms and conditions of this Agreement.
- 3.1.2 The National Freephone Service Access Service will enable Calls originating on the Service Taker's network via the Point Of Connection defined by the Joining Service to a reach National Freephone Numbers on the National Freephone Service Provider platform, via the Service Taker PSTN.
- 3.1.3 The valid national freephone number ranges are listed in the Service Schedule. The list will be amended from time to time to include any additional numbers to which Calls are to be conveyed pursuant to this Service Description or to remove numbers. The process for adding or removing numbers is specified in the Joint Working Manual.
- 3.1.4 Calls will only be conveyed pursuant to this Service Description where the National Freephone Service Provider accepts Calls from Service Taker Mobile Subscriber Connections. The Service Taker Mobile Subscriber will be informed through a voice announcement if a National Freephone Service Provider does not accept calls from Service Taker Mobile Subscriber Connections.
- 3.1.5 The National Freephone Access Service can only be provided in conjunction with a Joining Service. Sufficient dedicated capacity must be in place within the relevant Joining Service to handle the traffic in accordance with the Joint Working Manual.
- 3.1.6 The technical standards for voice telephony, operational processes and billing processes are described in the Joint Working Manual

3.2 Specific Responsibilities

- 3.2.1 Without prejudice to the responsibilities described elsewhere in this Agreement, each Party shall have the responsibilities set out in this Paragraph 5.2 of this Service Description.
- 3.2.2 Service Taker will be responsible for the metering necessary to monitor usage of all Calls passed by Service Taker to the Service Supplier PSTN using the National Freephone Access Service in accordance with the Joint Working Manual
- 3.2.3 Service Supplier will be responsible for monitoring the quality, managing and providing management information about the National Freephone Access Service from the Point of Connection to the valid National Freephone Service Provider and Service Taker will be responsible for monitoring the quality, managing and providing management information about the National Freephone Access Service from the Mobile Subscriber Connection to the Point of Connection in accordance with the Joint Working Manual. For the avoidance of doubt, access to the Service Supplier's and Service Taker's management information systems will not be provided.
- 3.2.4 The Service Taker will be responsible for forecasting usage of the National

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Freephone Access Service in accordance with the Joint Working Manual.

- 3.2.5 The Service Taker will be responsible for validating the called number against the valid national freephone numbers. In accordance with Clause 8.2, the Service Supplier will be under no obligation to convey Calls pursuant to this Service Description that are addressed to numbers not listed in the Service Schedule as valid numbers for the National Freephone Service Access Service.
- 3.2.6 The Service Taker will be responsible for managing any end-to-end Services provided by Service Supplier to Service Taker Subscribers that use the National Freephone Terminating Access Service.
- 3.2.7 Service Supplier will only convey Calls pursuant to this Service Description where the National Freephone Service Provider accepts Calls from Service Taker Mobile Subscriber Connections.
- 3.2.8 The National Freephone Service Provider shall take responsibility for the content and management of a Call when the Call has been handed over by the Service Taker. The Service Taker is not responsible under this Agreement for any such content.

3.3 Quality of Service

- 3.3.1 In accordance with Clause 15 Service Supplier will provide the National Freephone Access Service 24 hours/day, every day, to the Quality of Service levels set out in the Joint Working Manual and Parameter Schedule.
- 3.3.2 Quality of Service levels and Fault Restoration Times for National Freephone Service Access Service will be measured and reported by Service Supplier in accordance with the Joint Working Manual and Parameter Schedule. Service Supplier and Service Taker will periodically review the achieved quality parameters in accordance with the Joint Working Manual.

3.4 Configuration

- 3.4.1 The National Freephone Service Access Service will be available at Service Supplier ISLs specified in the Service Schedule.
- 3.4.2 Service Supplier will deliver traffic in Trunk Groups at each Point of Connection where the National Freephone Access Service is offered and required and will route Calls in accordance with the routing scheme and principles described in the Joint Working Manual and the Parameter Schedule
- 3.4.3 The Service Supplier will undertake the necessary routing and translation for all codes that require routing or translation across its System.

3.5 Charges

- 3.5.1 The tariffs for Charges for the National Freephone Service Terminating Access Service are specified in the Tariff Schedule. Payment will be made from the Service Supplier to the Service Taker to cover the Service Taker's costs of originating the call, where the National Freephone Service Provider accepts calls from Service Taker Mobile Subscriber Connections.
- 3.5.2 The charges for the National Freephone Service Access Service can be varied in accordance with Clause 10, at which time appropriate wording to explain any tariffs

and to make provision for billing will be added to this Service Description.

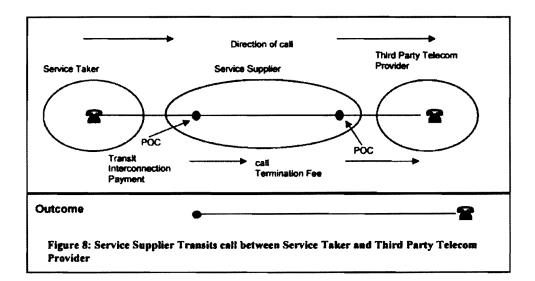
- 3.5.3 If the provision of Signalling Links is consistent with the dimensioning rule specified in the Joint Working Manual, the tariffs will include all charges for the handling of signalling messages required based on the specification of this Service.
 - End of Service Description -

PSTN TRANSIT SERVICES

4. PSTN Transit Service

4.1 Description

- 4.1.1 The PSTN Transit Service will be provided by the Service Supplier to the Service Taker, in accordance with the terms and conditions of this Agreement.
- 4.1.2 The PSTN Transit Service will provide conveyance of Calls from Service Taker Subscriber Connections destined for a Third Party National Telecom Provider Subscriber Connection in Trinidad and Tobago from the Point of Connection defined by the Joining Service via the Service Supplier PSTN to the Point of Handover in Trinidad and Tobago for collection by the Third Party National Telecom Provider.
- 4.1.3 Valid number ranges for Digicel Mobile Subscriber Connections and Third Party National Telecom Provider Subscriber Connections are listed in the Service Schedule. The list will be amended from time to time to include any additional numbers to which Calls are to be conveyed pursuant to this Service Description or to remove numbers. The process for adding or removing numbers is specified in the Joint Working Manual.
- 4.1.4 The PSTN Transit Service can only be provided in conjunction with a Joining Service. Sufficient dedicated capacity must be in place within the Joining Service to handle the traffic in accordance with the Joint Working Manual.
- 4.1.5 The technical standards for voice telephony, operational processes and billing processes are described in the Joint Working Manual.



4.2 Specific Responsibilities

- 4.2.1 Without prejudice to the responsibilities described elsewhere in this Agreement, each Party shall have the responsibilities set out in this Paragraph 1.2 of this Service Description.
- 4.2.2 Service Supplier will be responsible for the metering and billing necessary to charge Service Taker for all Calls passed by Service Taker to a Third Party National Telecom Operator or a Paging Provider via the Service Supplier PSTN using the PSTN Transit Service in accordance with the Joint Working Manual
- 4.2.3 Service Supplier will be responsible for monitoring the service quality, managing and providing management information about the PSTN Transit Service from the Point of Connection to the Point of Handover in accordance with the Joint Working Manual. Service Taker will be responsible for monitoring the service quality, managing and providing management information about the PSTN Transit Service from the Subscriber Connection to the Point of Connection in accordance with the Joint Working Manual. For the avoidance of doubt, access to the Service Supplier's or Service Taker's management systems will not be provided.
- 4.2.4 Service Taker will be responsible for forecasting usage of the PSTN Transit Service in accordance with the Joint Working Manual.
- 4.2.5 Service Taker will be responsible for validating the called number against the valid Third Party National Telecom Provider numbers and the valid Paging Provider numbers in accordance with the Numbering Scheme. In accordance with Clause 8.2 of the Legal Framework, Service Supplier will be under no obligation to convey Calls pursuant to this Service Description that are not listed in the Service Schedule as valid numbers for the PSTN Transit Service.
- 4.2.6 Service Taker will be responsible for the end-to-end management of Calls made from Service Taker Subscriber Connections using the PSTN Transit Service

4.3 Quality of service

- 4.3.1 In accordance with Clause 15 of the Legal Framework, the Service Supplier will provide the PSTN Transit Service twenty four (24) hours per day, every day, to the Quality of Service levels set out in the Joint Working Manual and Parameter Schedule.
- 4.3.2 Quality of Service levels and Fault Restoration Times for the PSTN Transit Service will be measured and reported by Service Supplier in accordance with the Joint Working Manual and Parameter Schedule. Service Supplier and Service Taker will periodically review the achieved quality parameters in accordance with the Joint Working Manual.
- 4.3.3 For the avoidance of doubt, Service Supplier is not responsible for the service quality of Call completion beyond the Point of Handover.

4.4 Configuration

4.4.1 The PSTN Transit Service will be available at CCTL ISL and Digicel IPOP(s) specified in the Service Schedule.

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4.4.2 Service Taker will deliver traffic in Trunk Groups at each Point of Connection where the PSTN Transit Service is offered and required and will route Calls in accordance with the routing scheme and principles described in the Joint Working Manual and the Parameter Schedule.

4.5 Charges

- 4.5.1 The tariffs for Charges for the PSTN Transit Service are specified in the Tariff Schedule.
- 4.5.2 The Charges for the PSTN Transit Service are payable in accordance with Clause 9 of the Legal Framework, can be varied in accordance with Clause 10 of the Legal Framework and are in addition to any other Charges payable for Services provided pursuant to this Agreement. Charges are the sum of applicable Usage Charges and include all payments to Third Party National Telecom Providers and Paging Providers for each Answered Call.
- 4.5.3 Usage Charges include:
 - · Call Duration Charges depending on duration;
 - Payments to the Third Party National Telecom Providers for completion of the Call.
- 4.5.4 The Tariff for Usage Charges will apply to all Answered Calls where the Service Taker routes the Call to a Service Supplier ISL / IPOP in the Interconnect Access Area where the Point of Handover is located.
- 4.5.5 For each Answered Call, the Call Setup Charge will be applicable when Call Start occurs.
- 4.5.6 The duration of an Answered Call will be measured from Call Start to Call End. The duration of an Answered Call will be logged by the Service Supplier, and the number of Time Units that shall apply will be calculated by the Service Supplier. For each Answered Call, the duration will be measured to an accuracy of a Time Unit.
- 4.5.7 If the provision of Signalling Links is consistent with the dimensioning rule specified in the Joint Working Manual the tariffs will include all charges for the handling of signalling messages required based on the specification of this Service.
- 4.5.8 For the avoidance of doubt, the Tariff Schedule does not include any sums that may be payable by Service Taker as a result of inaccurate forecasting of the PSTN Transit Service and delays to provisioning and acceptance testing. Any such sums will be calculated and charged for in accordance with the Joint Working Manual. Neither does it include any sums that may be payable pursuant to Clause 8.2 of the Legal Framework.
 - End of Service Description -

Digicel

Interconnection Agreement with Columbus Communications Trinidad Limited

Service Schedule – Schedule 3

PRIVATE & CONFIDENTIAL



Schedule of Services





PART 1. TERMINATION SERVICES

1.1 PSTN Terminating Access Service

Option	Service Supplier	Service Taker
Α	CCTL	Digicel

CCTL service supplied at the following CCTL ISL. Service taken at the following Digicel IPOP(s):

-	#	CCTL ISL	Digicel IPOP
	1		

List of Service Supplier Codes: 221-225

1.2 PLMN Terminating Access Service

Option	Service Supplier	Service Taker
Α	Digicel	CCTL

Digicel service supplied at the following Digicel ISL. Service taken at the following CCTL IPOP(s):

#	Digicel ISL	CCTL IPOP
1		

List of Service Supplier Codes: 285, 286, 287, 289-299, 301-310, 312-399

PART 2 SPECIAL SERVICES

National Freephone Access

Option	Service Supplier	Service Taker
Α	Digicel	CCTL
В	CCTL	Digicel

Service Schedule - Schedule 3

Digicel service supplied at the following Digicel ISL. Service taken at the following CCTL IPOP(s):

#	DIGICEL ISL	CCTL IPOP
1		

CCTL service supplied at the following CCTL ISL. Service taken at the following Digicel IPOP(s):

Γ	#	CCTL ISL	DIGICEL IPOP
ŀ	·	COLDIDO	
- 1	1 1		

PART 3 PSTN TRANSIT SERVICES

PSTN Transit Service



Option	Service Supplier	Service Taker	3 rd Party National Telecom
			Provider
Α	CCTL	Digicel	Mobile Telecom Provider
В	CCTL	Digicel	Fixed Telecom Provider

Service supplied at the following CCTL ISL:

I	#	CCTL Interconnect Switch Location	
1	1		

Service taken at the following Digicel IPOP(s):

#	IDAD	
77	1101	
1		

Points of Connection

	Digicel Interconnect Switch Location
Interconnect Access Area	ISL
Trinidad and Tobago	

	Interconnect Point of Presence
Interconnect Access Area	IPOP
Trinidad and Tobago	

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Service Schedule - Schedule 3

Interconnect Access Areas

Trinidad and Tobago IAA: Number Range

201 to 822 (Open Telecom, LISA, Three Sixty, TSTT Fixed, TSTT Mobile, Digicel

and CCTL number ranges)

Digicel Number Ranges: 285, 286, 287, 289-299, 301-310, 312-399

CCTL Number Ranges: 221 to 225

National Freephone Number Ranges

Digicel Freephone Number Range: 866

CCTL Freephone Number Range: 877

Digicel

Interconnection Agreement with Columbus Communications Trinidad Limited

Parameter Schedule - Schedule 4

PRIVATE & CONFIDENTIAL

Parameter Schedule

1. Termination Services PSTN Terminating Access Service

Fault Restoration Times	Time in which faults are repaired following notification through the Fault Control Centre (hours)
Faults concerning the PSTN Terminating Access Service	#6% of Paulisup be resolved in Shours. 95% of Baulisup be resolved in 13 frams. Remaining failure of be resolved by agreement.

PLMN Terminating Access Service

Fault Restoration Times	Time in which faults are repaired following notification through the Fault Control Centre (hours)
Faults concerning the PLMN Terminating Access Service	MANAGE AND

2. Special Access Services

National Freephone Access Service

Fault Restoration Times	Time in which faults are repaired following notification through the Fault Control Centre (hours).
Faults concerning the National Franches Accepts Service	Power of the state of the second of the seco

3. PSTN Transit Services

PSTN Transit Service

Fault Restoration Times	Time in which faults are repaired following notification through the Fault Control Centre (hours).
Faults concerning the PSTN Transit Service	20% of Faults to be resolved in Elbours. 95% of Faults to be resolved in 32 jugges. Remaining faults to be resolved by agreement.

To the extent of any inconsistency between this Schedule and Schedule F and each Party's Concession, the terms of each Party's Concession shall prevail.

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4. Trunk Groups and Routing Principles
Services are designated to the following trunk groups, with reference to the Digicel Network.

Trunk Groups

Classification	Outgoing/Incoming	Group
Domestic	incoming	
Domestic	Outgoing	Barta Links Barta i Anali
Domestic	Incoming	13. 22. 24. 3. 24. C
Domestic	Outgoing	TAKE TENDESTIME

Service	Trunk Designation/routing
PLMN Terminating Access Service	
PSTN Terminating Access Service	1
National (Digicel) Freephone Access	
National (CCTL) Freephone Access	Course with Development and

Note that there will be one set of trunk groups per Telco

5. Signalling

Called party number format	1000 Bib 2001 NA 2000 OV
Calling party number format	10.Digit=868.8320CX23XX
Number length (range)	3-18 Digits

6. Billing Addresses

Digicel	CCTL	
Digicel Trinidad and Tobago Limited	Columbus Communications Trinidad Limited	
3rd Floor, The ANSA Center, 11C Maraval Road	29 Victoria Square	
Port of Spain	Port of Spain	

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7. Contact Details

Company	Role	Contact Details
Digicel	Chief Technical Officer	

Company	Role	Contact Details
ссп.	Vice President of Network Services	

Digicel

Interconnection Agreement with Columbus Communications Trinidad Limited

Joint Working Manual - Schedule 5

PRIVATE & CONFIDENTIAL

CHAPTER 1: TECHNICAL

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1 Chapter 1 – Technical Specifications

1.1 Introduction

This chapter describes the technical specifications applicable to the Services as described in the Service Descriptions. The specifications in this chapter are applicable to both Parties.

1.2 1.544Mbit/s Network Link Characteristics

1.2.1 Electrical characteristics

- 1.2.1.1 The output jitter shall not exceed 5 UI under worst case operating conditions when measured in the frequency range 10 Hz to 40 kHz, as defined in ANSI T1.102 (Table 9).
- 1.2.1.2 The tolerance of both the Digicel and the CCTL input ports to jitter should be as defined in ITU-T Recommendation G.823,
- 1.2.1.3 A jitter measuring set conforming to the requirements of ITU-T Recommendation O.171 (Timing Jitter Measuring Equipment for Digital Systems) shall be used to measure jitter. Digicel and CCTL shall co-operate in the application of testing methods as described in ITU-T Recommendation G.823.
- 1.2.1.4 The wander specification is set out in ITU-T recommendation G.823. The maximum values of wander at input ports must conform to section 3.1.1 of ITU-T Recommendation G.823.

1.2.2 Functional characteristics

- 1.2.2.1 Each 1.544Mbit/s Network Link shall be transparent and independent of any traffic stream passed across it.
- 1.2.2.2 For the D-type channel bank application, eight bits are available for payload in 5/6 of the DSI frames. In every sixth frame, bit position eight (# 8) is a payload overhead channel, used for signalling. In the super frame format, two distinct channels are available; A and B as presented in ANSI T1.107 figure 7, while four distinct channels, A, B, C, and D are available in the extended superframe format as presented in figure 10 of ANSI T1.107.
- 1.2.2.3 1.544Mbit/s interfaces shall conform to ANSI T1.107 for generation of Alarm Identification Signal (AIS) and RAI alarms and with G.824 for slipping conditions. RAI timing requirements shall comply with ANSI T1.231.
- 1.2.2.4 At the digital interface the analogue information shall be encoded using the 8bit, μ-law characteristic in accordance with ITU-T Recommendation G.711 such that a 64kbit/s time slot at the switch connection can be decoded using an 8-bit, μ-law decoder. The bit pattern of a free channel shall be in conformity with ITU-T recommendation Q.522, section 2.1.2.

1.2.3 Synchronisation

- 1.2.3.1 CCTL shall synchronise on the Digicel System via nominated Network Links using an OC-3 Carrier System.
- 1.2.3.2 Digicel will provide the 1.544Mbit/s interface for synchronisation for the CCTL Switch. Inputs will have a minimum accuracy of Stratum 2 (Accuracy of 1.6x10-8 and stability of 1x10-10/day).

- 1.2.3.3 The nominated synchronisation channels will be agreed as part of the order process.
- 1.2.3.4 The maximum wander shall conform to ITU-T G.811 and G.812. The synchronisation provided by Digicel meets the requirements of ITU-T G.703 and is traceable to Stratum I source (minimum accuracy of ±1x10-11).

1.2.4 Safety and protection

- 1.2.4.1 All equipment will comply with UL 1950 and/or national safety standards whichever is the most stringent.
- 1.2.4.2 For high voltages, equipment will comply with ITU-T K.11.
- 1.2.4.3 If radio equipment is used, it will comply with the International standard ITU-T K.37 to protect employees from electromagnetic radiation with a power in excess of 1 milliwatt per centimetre.
- 1.2.4.4 The screen of the cable at an output port must be connected to the metal cabinet, which holds the equipment. The screen of the cable at an input port must be earthed.

1.2.5 Electromagnetic Compatibility

- 1.2.5.1 All link equipment must comply with ITU-T K.43 for network equipment Electromagnetic Compatibility (EMC) requirements and must comply with any national regulations relating to electromagnetic and electrostatic compatibility.
- 1.2.5.2 All link equipment must comply with ITU-T K.42 for immunity to radiated electromagnetic energy.
- 1.2.5.3 All link equipment must comply with ANSI T1.308 and/or ITU-T K.32 for electrostatic discharge
- 1.2.5.4 All link equipment must comply with EN 55022 class B or FCC Part 15 for radiated and conducted emissions.
- 1.2.5.5 All link equipment must comply with any national regulations relating to electromagnetic and electrostatic compatibility.
- 1.2.5.6 The link equipment must be immune to radiated electromagnetic field of up to 3V/m.

1.3 Network Link Quality of Service

1.3.1 Definitions

- 1.3.1.1 Network Link Availability, Errored Seconds and Severely Errored Seconds are the parameters used to measure the service quality of the Network Link. These Quality of Service parameters are applicable to all Network Links that are delivered by Digicel as well as to all Network Links that are delivered by CCTL. Measurements of these service quality parameters will be specified in units relating to calendar months.
- 1.3.1.2 The definition of Network Link Availability (%) for a Party is

100 * (total time - time allocated to Planned Maintenance - time the link is not available for traffic due to faults)

(total time - time allocated for Planned Maintenance)

during the specified calendar month.

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- 1.3.1.3 The definition of Errored Second is a one second interval with one or more bit errors.
- 1.3.1.4 The definition of Severely Errored Second is a one-second period, which has a bit error ratio greater than or equal to 10⁻³.

1.3.2 Quality of Service Levels

1.3.2.1 The following Quality of Service Level is applicable to the Network Links.

1.	Network Link Availability	> 99.5%
2.	Percentage of Severely Errored Seconds	≤ 0.055%
3.	Error Free Seconds	> 99.0%

1.4 Signalling

1.4.1 Signalling Principles

- 1.4.1.1 Signalling applied shall be Signalling System No. 7 which conforms to ANSI T1.110 standards. Operator dependent implementations of the signalling protocol at the network interconnection interface will not be supported.
- 1.4.1.2 In principle Digicel will transfer signalling messages transparently through its network. However, Digicel cannot guarantee proper end-to-end inter-working of services originating or terminating outside the Digicel network.

1.4.2 Circuit related signalling

1.4.2.1 3.1 Khz audio and speech bearer services are supported.

1.4.3 Protocols

- 1.4.3.1 The MTP (ANSI T1.111) and ISUP V2 (ANSI T1.113) protocols are supported.
- 1.4.3.2 The signalling mode is quasi-associated.

1.4.4 Parameter fields

1.4.4.1 Network indicator 11 (binary notation) and National Transit Domain point-codes shall be used. The CLI represents the national significant number or international number depending on the source of the call. The nature of address indicator shall be set accordingly. The address presentation restriction indicator shall not contain the values "spare" or "address not available".

1.4.5 Signalling procedure

- 1.4.5.1 All calls to national significant numbers shall use en-bloc-signalling mode of operation.
- 1.4.5.2 In case of overlap signalling mode of operation the Address Complete Message shall be sent as soon as all digits necessary to complete the call are received.
- 1.4.5.3 Stop digits for indicating that the full number is transmitted shall be used where necessary.
- 1.4.5.4 The required called party number format, nature of address, number length (range) and signalling mode of operation as passed between the networks is specified in the Parameter Schedule.

1.5 Traffic Handling of Services

1.5.1 Routing

- 1.5.1.1 The location of the ISL at which Services are provided pursuant to this Agreement are specified in the Service Schedule.
- 1.5.1.2 Each party will undertake the routing/translation for all codes that require re-routing/retranslation across its network.

1.5.2 Trunk Groups

- 1.5.2.1 Separate Trunk Groups per Service or for a group of services will be agreed.
- 1.5.2.2 All trunk groups will be uni-directional.
- 1.5.2.3 The separate Trunk Groups between the CCTL ISL and the corresponding Digicel ISL are specified in the Parameter Schedule.

1.5.3 Signalling Links

- 1.5.3.1 A minimum of two Signalling Links will be provided between the Digicel System and the CCTL System.
- 1.5.3.2 Digicel and CCTL will maintain equal loading of the Signalling Links.
- 1.5.3.3 The Signalling Links will be designed for a normal load of 0.2E and a maximum load of 0.4E following the guidelines of ETS 300 008.
- 1.5.3.4 The dimensioning of Signalling Links will be determined by the number of Call attempts using Erlangs formula.
- 1.5.3.5 This formula is applicable when Signalling Links are used for circuit related signalling and the number of links will be subsequently monitored, and adjusted, should this be necessary, according to specific traffic type.
- 1.5.3.6 The Signalling Links shall be used for the exchange of signalling messages and SMS messages.
- 1.5.4 Quality of Service for Termination Services, Special Access Services, Transit Services and Other Services
- 1.5.4.1 The Quality of Call related Termination Services, Special Access Services, Transit Services and Other Services are represented by the parameters Call Availability, Dial Set-up Delay and Propagation Delay.
- 1.5.4.2 Depending on the Service offered the Service Supplier has a role as:
 - originating party. In this role the Service Supplier handles calls from the Subscriber Connection of the calling party in the originating network to the Point of Connection.
 - transit party. In this role the Service Supplier handles calls from the Point of Connection or Point of Handover as the case may be via the national transit network to the Point of Handover or Point of Connection as the case may be.

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- terminating party. In this role the Service Supplier handles calls from the Point of Connection to the called Subscriber Connection of the called party in the terminating network.
- 1.5.4.3 For each Quality of Service parameter a value is defined.

1.5.5 Call Availability

- 1.5.5.1 The definition of Call Availability (%) is
 - 100 * (total call attempts total call releases with causes marked as network fault) (total call attempts)

during a specified calendar month.

Release causes marked as network faults are the following causes specified in ITU-T rec. Q.850:

- * no circuit/channel available
- network out of order
- * temporary failure
- switching equipment congestion
- * access information discarded
- requested circuit/channel not available
- * resource unavailable, unspecified
- bearer capability not presently available
- * protocol error, unspecified
- * interworking, unspecified.
- 1.5.5.2 The Call Availability is > 99.6%. The apportionment for the Call Availability budget for Service Supplier and Service Taker is as follows:

Originating party	Transit party	Terminating party
>99.6 %	>99.8 %	>99.6 %

1.5.6 Dial Setup Delay

- 1.5.6.1 Dial Setup Delay is defined as the interval from the moment that the last digit of the called party number is keyed by the calling party to the time a relevant tone (ring tone/busy/information tone/message) is received by the calling party.
- 1.5.6.2 Dial Setup Delay Quality of Service parameter shall be no more than 2350 ms for a national Call.
- 1.5.6.3 The apportionment for the Dial Setup Delay value for Service Supplier and Service Taker is as follows:

	Originating party	Transit party	Terminating party	database access if applicable
I	575 ms	700 ms	575 ms	500 ms

1.5.7 Propagation Delay

- 1.5.7.1 Propagation Delay is defined as the round trip delay between the received signal and the transmitted signal.
- 1.5.7.2 The Propagation Delay Quality of Service parameter shall be no more than 22ms. Both Parties will take appropriate actions (e.g. echo cancellation) if this Propagation Delay is exceeded.
- 1.5.7.3 The apportionment for the Propagation Delay budget for Service Supplier and Service Taker is as follows:

Originatin g PBX network if applicable	Originatin g party	Transit party	Terminating party	Terminating PBX network
5 ms	4.5 ms	3 ms	4.5 ms	5 ms

1.5.8 Calling Line Identity

- 1.5.8.1 All interconnect trunks will utilise Q.731 signalling through which CLI will be passed transparently.
- 1.5.8.2 All numbers with CLI are transparent between networks. Calling Number Delivery Blocking (CNDB) shall be applied to all private numbers within the Digicel System and the CCTL System. Digicel and CCTL should ensure that CLI associated with numbers with the CNDB feature is blocked from Subscriber Connections.

1.6 References

ITU-T Recommendation	
G.703	"Physical/electrical characteristics of hierarchical digital interfaces"
G.711	"Pulse code modulation (PCM) of voice frequencies"
G.821	"Error performance of an international digital connection forming part of an integrated services digital network"
G.824	"The control of Jitter and wander within digital networks which are based on the 1.544 Mbit/s hierarchy".
O.171	"Timing Jitter measuring equipment for digital systems"
K.11	"Principles of protection against over voltage and over current"
K.42	"Preparation of emission and immunity requirements for telecommunications equipment"
K.43	"Immunity requirements for telecommunications equipment"
K.37	"Public Telecommunications network equipment EMC requirements Part I: Product family overview, compliance criteria and test levels"
UL 1950	"Standard for Safety for Information Technology Equipment, 3rd Edition"
ANSI	
T1.102-1993 T1.105-1995	Digital Hierarchy – Electrical Interfaces Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats
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T1.105.01-1998	Synchronous Optical Network (SONET) - Automatic Protection
T1.105.02-1995	Synchronous Optical Network (SONET) - Payload Mappings
T1.105.03-1994	Synchronous Optical Network (SONET) - Jitter at Network Interfaces
T1.105.04-1995	Synchronous Optical Network (SONET) - Data Communication Channel
	Protocol and Architectures
T1.105.05-1994	Synchronous Optical Network (SONET) - Tandem Connection Maintenance
T1.105.06-1996	Synchronous Optical Network (SONET) - Physical Layer Specifications
T1.105.07-1996	Synchronous Optical Network (SONET) - Sub-STS-1 Interface Rates and
	Formats Specification
T1.105.09-1996	Synchronous Optical Network (SONET) - Network Element Timing and
	Synchronization
T1.105.06-1996	Synchronous Optical Network (SONET) - Digital Hierarchy Optical Interface
	Specification: Single-Mode
T1.107-1995	Digital Hierarchy - Formats Specifications
T1.110-1992	Signalling System No. 7, General Information
T1.111-1996	Signalling System No. 7, Message Transfer Part
T1.112-1996	Signalling System No. 7, Signalling Connection Control Part Functional
	Description
T1.231-	Digital hierarchy-Layer I in-Service Digital Transmission Performance
	Monitoring
T1.304-1997	Ambient Temperature and Humidity Requirements for Network Equipment in
	Controlled Environments

2 Chapter 2 - Operations and Maintenance

2.1 Operations and Maintenance: Introduction

- 2.1.1.1 This chapter specifies the operations and maintenance principles that Digicel and CCTL will be required to conform to following signing of the Agreement. It describes the processes for Services provided by each Party and the exchange of information between Parties.
- 2.1.1.2 The following processes are covered in this chapter.



Figure 1 Operational

2.2 Roles and Responsibilities

2.2.1 Introduction

2.2.1.1 This section describes the functions from each Party's organisation that are required to assure the effective management and execution of processes. The roles, which may be combined, are:

I. Liaison Manager
The Liaison Manager has overall
responsibility for preliminary
discussions regarding service
planning, implementation and
operational processes. Information
should be exchanged between
Liaison Managers, unless stated
otherwise in this manual.

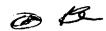
II. Operations Manager
The Operations Manager has
responsibility for managing the day
to day Quality of Service including
operational processes.

III. Project Manager
The Project Manager has
responsibility for the service
planning, commissioning, testing
and implementation for new and
additional Services. The Project
Manager will track the activities
relating to forecasting, ordering,
provisioning and testing and will

IV. Planning Manager
The Planning Manager has
responsibility for forecasting and
planning services and dimensioning
of facilities for new and additional
Services. Communications will
generally be through the Project
Manager to allow project
co-ordination and monitoring.

CHAPTER 2: OPERATIONS AND MAINTENANCE

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keep the Liaison Manager abreast of related issues.

V. Fault Control Manager
The Fault Control Manager has
responsibility for managing a 24
hour, all days a year Fault Control
Centre (FCC) for its respective
network. The Fault Control Centre
will own, identify and resolve
relevant faults.

VI. Service Quality Manager The Service Quality Manager has responsibility for monitoring service performance.

2.2.1.2 The relationship between the roles is illustrated in Figure 2 below:

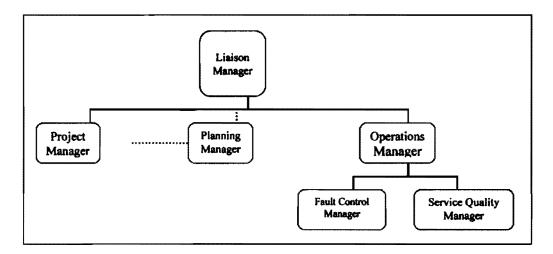


Figure 2 Relationships between roles

2.2.2 Meetings

- 2.2.2.1 Periodic meetings involving representatives from both Parties will be held, at least quarterly, and may be held face to face or by teleconference. Meetings will consider issues relating to implementation and operation of Services provided pursuant to this Agreement.
- 2.2.2.2 Service Implementation Meetings will include Forecasting Meetings, Order Planning Meetings, Provisioning Meetings and Testing Meetings.
- 2.2.2.3 Forecasting Meetings will consider, inter alia, the service forecasts of both Parties and will seek to validate any assumptions used in making the forecasts.
- 2.2.2.4 Order Planning Meetings will consider, inter alia, the final forecast and will lead to the production of an Order Plan.
- 2.2.2.5 Provisioning Meetings will, inter alia, review progress against plans and lead to agreement on any changes required.
- 2.2.2.6 Testing Meetings will, inter alia, review the process, the test stages, the test suites, the test plan and service acceptance. Any additional inter-operability testing that is required as a result of differences in standards or the introduction of new technology will also be included.

- 2.2.2.7 Additional technical meetings may be held prior to the provisioning phase for the early exchange of information regarding technical standards, the numbering scheme of each network, switch identification, routing etc.
- 2.2.2.8 Operational Meetings will inter alia
 - review process performance by comparing actual and agreed quality of service levels
 - review operational problems that affect the quality of service levels
 - review of Interconnect Resolution Log
 - agree on quality initiatives
 - discuss Performance Reports

2.2.3 Service Implementation

2.2.3.1 The service implementation process is shown in Figure 3 below.

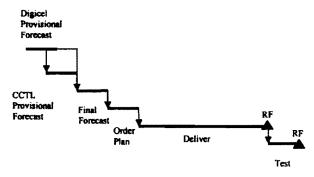


Figure 3. Service planning

2.2.4 Performance Reports

- 2.2.4.1 Written Performance Reports will be exchanged quarterly and will include:
 - Services that have been forecasted and ordered, in the role of Service Taker, and services that have been delivered in the role of Service Supplier; and
 - · Service performance data.
- 2.2.4.2 The minimum set of items to be included in the Performance Report is listed in Appendix 1.

2.2.5 Interconnect Resolution Log

- 2.2.5.1 The resolution process is a mechanism for recording, tracking and ultimately resolving interconnect issues that have not been resolved within established time periods and through normal processes.
- 2.2.5.2 An Interconnect Resolution Log will be maintained to keep track of interconnect issues and their status. This log (which will include the items set out in Appendix 1) will be maintained by the Parties and shall be reviewed at the Operational Meetings.

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2.2.6 Technical disputes

2.2.6.1 In the event of any dispute arising in respect of any technical matter in connection with this Agreement (other than technical matters in relation to fault resolution prior to the exhaustion of the fault escalation procedure), such dispute shall in the first instance be referred to the Parties' respective Liaison Managers for resolution. In the event that the Liaison Managers shall fail to resolve such dispute within thirty (30) days of the matter being referred to them, either Party may refer the dispute to the Telecommunications Authority of Trinidad and Tobago. The Parties shall co-operate in such determination and will make all relevant information and technical data available.

2.3 FORECASTING, ORDERING AND PROVISIONING

2.3.1 Forecasting

- 2.3.1.1 The forecasting process requires both Parties to plan and exchange Forecasts for each applicable Service provided pursuant to this Agreement, and to ensure that changes to the Forecasts are communicated in a timely fashion.
- 2.3.1.2 The exchange of Forecast information is required to enable each Party to plan and manage its System and human resources. The process is ongoing over a rolling 24-month period with quarterly updates.
- 2.3.1.3 Each Party has the opportunity to comment on the validity of provisional Forecast information in the forecasting meetings, and to review any assumptions used. Each Party is encouraged to provide appropriate supplementary information to aid the development of Forecasts.
- 2.3.1.4 All information exchanged will be treated as confidential, and will not be used for any purpose other than as set out in this Joint Working Manual.
- 2.3.1.5 Each Party shall provide a provisional Forecast for all Services that they require (in the role of Service Taker) from the other Party (in the role of Service Supplier) for the ensuing two year period. This provisional Forecast will consist of the locations and number of Network Links within each Joining Service, together with traffic forecasts for all other Services provided pursuant to this Agreement. Traffic forecasts will include the locations of the applicable Point of Connection and the location of the associated Point of Handover. In addition, forecasts for Special Access Services will include an estimated number of Calls. The Parties will exchange forecasts on agreed dates each quarter, using the forms in Appendix II.
- 2.3.1.6 The two Parties will meet shortly thereafter to agree on the Forecast data in relation to the following Quarter; such agreed Forecast data will be called the "Final Forecast" and will include the combined provisional forecasts of both parties (with any agreed amendments).

2.3.2 Ordering

- 2.3.2.1 The Parties will agree an Order Plan for each Quarter at the preceding quarterly ordering meeting and following sign-off by both Parties the Order Plan shall be treated as submitted and shall constitute a binding Order from each Party for capacity. The relevant Final Forecast will be an integral component of the Order. The format of the Order Plan is given at Appendix III.
- 2.3.2.2 The Order Plan will include a Ready for Tcst Date and Ready for Service Date for the capacity. These dates will depend on whether additional Network Links are required, whether an additional Carrier System is required or whether a new Joining Service is

- required and on the location of the applicable CCTL ISL and associated Digicel ISL and will be agreed between the Parties on a case by case basis.
- 2.3.2.3 The decision as to whether a new Joining Service or additional Carrier System is required will be based on the Final Forecast and, if necessary, appropriate variations made to the Service Schedule and other relevant parts of this Agreement. For the avoidance of doubt, since the Order Plan will be based on the Final Forecast, it will represent an order for capacity in both directions.
- 2.3.2.4 For the avoidance of doubt, the Order Plan will not include a specific use requirement for any Termination Service or Transit Service but the Parties recognise that the Final Forecast for those Services will be used to agree an Order Plan for capacity and will be used by the Service Supplier to anticipate likely demand for those Services.
- 2.3.2.5 The Ready for Test Date and Ready for Service Date may be subject to Force Majeure circumstances, including delays caused by third parties, events beyond the Service Supplier's control and delays caused by the Service Taker not complying with its obligations, providing insufficient or inaccurate information or not co-operating with the Service Supplier. In the event of any delay attributable to such Force Majeure circumstances, events and delays caused by the Service Taker, the Ready for Test Date and/or Ready for Service Date shall be deemed extended by the number of days of delay and the Service Supplier shall not be liable therefore. References to the Service Supplier and Service Taker are to the Service Supplier and Service Taker of the relevant Joining Service.
- 2.3.2.6 In the event that a Service Taker shall notify the Service Supplier that it wishes to cancel any capacity specified in an Order Plan (whether prior to or following provisioning), the Service Supplier shall be entitled to invoice the Service Taker for the Early Termination Charge in respect of such capacity and the Service Taker shall make payment of such amount within thirty (30) days of the date of such invoice. In the event that a Service Taker shall notify the Service Supplier that it wishes to cancel any incremental capacity specified in an Order Plan (following initiation of provisioning), the Service Supplier shall be entitled to invoice the Service Taker for the Service Supplier's fully documented costs in respect of such capacity and the Service Taker shall make payment of such amount within thirty (30) days of the date of such invoice. For the avoidance of doubt, termination of this Agreement under any of Clauses 23.1(c) to (i), and 25.5 of the Legal Framework shall be deemed to effect a cancellation of the capacity specified in all Order Plans then being provided. For the purposes of this paragraph, a Service Supplier shall be the Service Supplier of Joining Services, and the terms Service Supplier and Service Taker shall be construed accordingly.
- 2.3.2.7 The Parties agree that the Early Termination Charges or fully documented costs represent a reasonable pre-estimate of a Service Supplier's loss on any actual or deemed cancellation of an Order in the circumstances specified in Paragraph 2.3.2.6 and that such amounts shall not be regarded as or deemed to be onerous or a penalty.

2.3.3 Provisioning

- 2.3.3.1 After the submission of the Order Plan, both Parties shall carry out the necessary preparations required for installation of the Services.
- 2.3.3.2 The Service Supplier and the Service Taker will use their reasonable endeavours to perform all activities to ensure that the Carrier Systems and T1 Network Links are in place to meet the agreed Ready for Test Date and Ready for Service Date.

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- 2.3.3.3 If a Party envisages a delay to the Ready for Test Date or Ready for Service Date, it will inform the other Party in writing within 24 hours clearly indicating the reasons for the delay and any proposed revised Ready for Test Date or Ready for Service Date and the Parties shall seek to agree a revised date.
- 2.3.3.4 Both Parties shall seek to minimise delay and the effects of delay.

2.3.4 Compensation for inaccurate forecasts

- 2.3.4.1 Compensation shall be payable by the Service Taker to the Service Supplier in the following cases:
 - (a) where in relation to any Quarter, the Relevant Forecast exceeds the Relevant Traffic by at least the Forecast Threshold; and/or
 - (b) where in relation to any Quarter, the Operator Services Forecast exceeds the Operator Services Traffic by at least the Forecast Threshold.

2.3.4.2 For these purposes:

- (a) the Relevant Forecast for any Quarter shall be the aggregate Final Forecast of the Service Taker's aggregate traffic utilising any of the Services during such Quarter between each CCTL ISL and the corresponding Digicel ISL;
- the Relevant Traffic for any Quarter shall be the Service Taker's aggregate traffic utilising any of the Services during that Quarter between each CCTL ISL and the corresponding Digicel ISL;
- (c) the Operator Services Forecast for any Quarter shall be the aggregate Final Forecast of the Service Taker's aggregate traffic utilising any of the Operator Services during such Quarter between each CCTL ISL and the corresponding Digicel ISL:
- (d) the Operator Services Traffic for any Quarter shall be the Service Taker's aggregate traffic utilising any of the Operator Services during that Quarter between each CCTL ISL and the corresponding Digicel ISL; and
- (e) the Forecast Threshold shall be 20% of the Relevant Forecast or such other percentage as may be agreed between the parties.
- 2.3.4.3 Subject to Paragraph 2.3.4.5, in the event that the Relevant Forecast for any Quarter shall exceed the Relevant Traffic by at least the Forecast Threshold and/or the Operator Services Forecast for any Quarter shall exceed the Operator Services Traffic by at least the Forecast Threshold the Service Supplier shall be entitled to receive payment from the Service Taker, by way of compensation, of the Service Supplier's non-recoverable costs flowing from such inaccurate forecast or inaccurate forecasts and from any resultant inaccuracies in the Service Supplier's own forecast or forecasts, including but not limited to, one-off operating costs and carrying charges, capital charges and depreciation for the period until the relevant equipment would generally be reused.
- 2.3.4.4 In the event that the Relevant Traffic for any Quarter shall exceed the Relevant Forecast, the Service Supplier shall use its reasonable endeavours to provide the Services in respect of traffic exceeding such Relevant Forecast, but shall have no liability for any failure to do so or for any reduced Quality of Service.
- 2.3.4.5 Neither Party shall be liable to make payment of compensation:

- (a) in respect of a Relevant Forecast relating to any Quarter which occurs within the first twelve months following signature of an Agreement; and
- (b) to the extent that the difference between the Relevant Forecast and Relevant Traffic, or between the Operator Services Forecast and Operator Services Traffic, as appropriate, in respect of any Quarter is directly attributable to any failure by the other Party, (in the event that such Party is Service Supplier of a Joining Service to be delivered during the Quarter in question) to deliver such Joining Service in accordance with Paragraph 2.3.5.1. or
- (c) to the extent that the difference between the Relevant Forecast and the Relevant Traffic is due to a Force Majeure circumstance.
- 2.3.4.6 For the purposes of Paragraphs 2.3.4.1 2.3.4.5, the Service Supplier, in each case, shall be responsible for the measurement of the Relevant Traffic and Operator Services Traffic for each Quarter. In the absence of manifest error, any statement produced by the Services Supplier of the Relevant Traffic and Operator Services Traffic shall be considered definitive and not called into question.
- 2.3.4.7 For the avoidance of doubt, the obligation to compensate set out in paragraphs 2.3.4.1 2.3.4.5 is designed to recover costs flowing from inaccurate ordering of capacity. Liability for compensation is assessed by reference to the forecasts for services carried over such capacity since that is the basis upon which the Order Plan for the capacity will be prepared.

2.3.5 Compensation for delay in installation or acceptance testing

- 2.3.5.1 Subject to Paragraph 2.3.2.5, in the event that, in relation to any capacity, the Ready for Test Date or Ready for Service Date is not met through the act or omission (including negligence) of the Service Supplier, the Service Taker shall be entitled to claim compensation for any of its fully-documented costs arising out of or in connection with such delay for which the Service Supplier would be liable under this Agreement.
- 2.3.5.2 Any dispute as to an amount payable under Paragraph 2.3.5.1 of this Joint Working Manual shall be submitted to an expert for determination under Paragraph 2.3.7.

2.3.6 Invoicing and Payment

2.3.6.1 In the event that either Party shall be entitled to receive payment under Paragraphs 2.3.4 or 2.3.5 it shall be entitled to invoice the other Party for the relevant amount immediately upon such entitlement arising. Any invoice shall include a breakdown of the cost elements included in the relevant amount. Any such invoice shall be payable within thirty (30) days of the date of deemed delivery.

2.3.7 Dispute Resolution

2.3.7.1 If either Party liable to pay compensation ("the Penalty Payer") disagrees with the estimate of loss, the Penalty Payer may require the other party ("the Penalty Charger") to justify the amount to an independent expert agreed between the Parties, or in the absence of such agreement to an independent expert to be appointed by the Telecommunications Authority of Trinidad and Tobago. In providing such justification, all cost information will be kept confidential and not revealed to the Penalty Payer. The independent expert will assess the loss and either confirm the Penalty Charger's penalty or substitute a replacement amount. The expert's decision will be final and binding. The costs of the expert shall be met by the Penalty Payer if the Penalty Charger's estimate is upheld (or the amount substituted is higher than the original estimate or not less than 5 % lower than the original estimate). Otherwise the Penalty Charger will pay for the costs of the expert.

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2.4 ACCEPTANCE TESTING

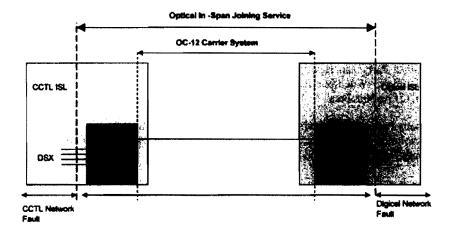
- 2.4.1.1 The acceptance testing process requires both Parties to ensure that all required T1 Network Links within the Carrier System(s) in the relevant Joining Service and any applicable Services are operational by the agreed Ready for Service Date (or other agreed date) to the agreed operational specifications and at the lowest practicable cost.
- 2.4.1.2 Plans for acceptance testing will be included in the Order Plan and shall consist of the standard suite of tests in accordance with Chapter 4 of the Joint Working Manual.
- 2.4.1.3 Any subset of the standard suite of tests to be used will be agreed by both Parties on a case-by-case basis. The Service Supplier of the relevant Joining Service will supply the other Party with all relevant test documentation. The Service Taker shall liase with and provide full co-operation to the Service Supplier in the performance of such acceptance tests.
- 2.4.1.4 The two Parties shall jointly develop a test plan in accordance with Chapter 4 of the Joint Working Manual. The test plan shall include all required tests to be performed at specified intervals throughout the implementation of the Order Plan and the contact names and telephone numbers of representatives of both Parties.
- 2.4.1.5 Both Parties shall sign the test plan at least one week before the expected start of acceptance testing. Any delay in signing the test plan may result in a consequential delay of all previously scheduled implementation dates.
- 2.4.1.6 Prior to the scheduled Ready for Test Date (or other agreed date), all Carrier Systems, TI Network Links and signalling links to be used during acceptance testing must be in place and Individual Location Tests must have been successfully completed.
- 2.4.1.7 At least five (5) Business Days before the scheduled Ready for Test Date (or other agreed date), the Service Supplier of the relevant Joining Service shall advise the Service Taker whether the provisioning has been completed and acceptance testing can commence.
- 2.4.1.8 All acceptance test results will be recorded in a test report in accordance with Chapter 4 of the Joint Working Manual and both Parties will retain copies for future reference.
- 2.4.1.9 If the acceptance testing is successful, each Party will sign the acceptance test reports within five (5) Business Days of completion.
- 2.4.1.10If acceptance testing is unsuccessful within the initially agreed time frame, the Parties may agree on a partial acceptance testing, with the understanding that full compliance will be met by an agreed date.
- 2.4.1.11f either Party cannot accept the Carrier System and/or Network Links and/or Service with partially successful acceptance testing, then the reasons for non-acceptance should be documented and the report signed indicating non-acceptance. The Parties will agree what action should be taken, including any timeframe for remedial work and re-testing. Any disputes will be resolved in accordance with Clause 34 of the Legal Framework.

2.5 FAULT MANAGEMENT

2.5.1.1 The fault management process adopted by both Parties shall ensure the prompt restoration of agreed quality of service. The level of detail for reporting faults will be agreed in advance of service activation by the two parties and will be reciprocal.

2.5.1 Fault Classification

- 2.5.1.2 Faults arising in segments of the network illustrated in figure 4 will be classified as follows:
 - Carrier System Fault
 A Fault resulting in the total loss of ability by either Party to transmit Calls between the two Systems due to transmission faults on the T1 Network Link or an entire Carrier System
 - ii. Network Fault A Fault located within the Digicel System (Digicel Network Fault) or within the CCTL System (CCTL Network Fault). Network Faults include faults within the signalling networks.



- 2.5.1.3 Figure 4. Fault Classification in Network Segments
- 2.5.1.4 Faults will be addressed depending on individual circumstances, with Service Affecting faults having the higher priority:
 - i Service Affecting (SA)

Faults that result in a noticeable deterioration in the Quality of Service:

- a Carrier System Faults for which the Fault Reporting Party can demonstrate a total loss of ability by either Party to transmit calls between Systems due to transmission faults within the Carrier System (Critical Link Failure);
- b Network Faults for which there is a Critical Link Failure or Major Link Failure or Route Failure and for which the Fault Reporting Party can demonstrate:
 - severely restricted ability by either Party to convey Calls between the two Systems; or
 - Total loss of, or severely restricted access to one or more of the Numbering Ranges which reside on either Party's System; or
 - Total loss of, or severely restricted access to one or more of the number ranges which reside on a Third Party Telecom Provider's System, where the Calls are transited via either Party's System; or
 - a loss of Service deemed as 'business critical' by either Party

ii Non Service Affecting (NSA)

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A Fault which is not Service Affecting

2.5.1.5 Critical Link Failure, Major Link Failure, and Critical Route Failure, Major Route Failure and Minor Route Failure are defined as follows:

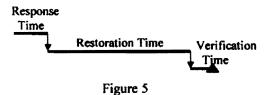
Fault type	Classification
Critical Link Failure	100% of total signalling capacity is unavailable
Major Link Failure	50% of total signalling capacity is unavailable
Critical Route Failure	50% or more of total capacity of the route is unavailable to carry truffic.
Major Route Failure	25% to < 50% of total capacity of the route is unavailable to carry traffic
Minor Route Failure	1% to < 25% of total capacity of the route is unavailable to carry traffic

2.5.2 Fault Control Centres and Fault assignment

- 2.5.2.1 Each Party is required to provide a Fault Control Centre (FCC) for Fault reporting and Fault management. Each FCC should operate twenty-four (24) hours per day, seven (7) days per week and all days per year. FCCs for each Party should have specified contact numbers.
- 2.5.2.2 Either Party can report a Fault. Each FCC will maintain a unique set of FCC Log Numbers. When one Party's FCC reports a Fault to the other, the FCCs will exchange FCC Log Numbers.
- 2.5.2.3 Both Parties' FCCs will exchange sufficient information to allow for efficient Fault resolution of all affected Services. A standard Fault Management Form will be used by both FCCs to report and receive faults. (Appendix IV)
- 2.5.2.4 Each reported Fault will be investigated by the reporting Party to ensure that the Fault exists and to attempt to establish the location of the Fault.
- 2.5.2.5 Once the Fault is reported, the Parties will decide who will take responsibility for the Fault. The Party who takes responsibility for the Fault shall be called the Fault Owner and the other Party shall be called the Other Affected Party. Where no agreement over ownership can be reached, the Fault Owner will be the Party who was informed of the Fault.
- 2.5.2.6 Internally Detected Faults are Faults that a Party believes to exist within its own network. Once detected, the Party will inform the other Party about any Service Affecting Faults. This also applies to known Service Affecting Faults in a connected Third Party Telecom Provider's network.

2.5.3 Fault Restoration

2.5.3.1 The stages associated with Fault restoration are presented in Figure 5.



2.5.3.2 If, during Fault restoration, it is established that the ownership of the Fault is in the System of the Other Affected Party, then the roles will be reversed, i.e. the Fault Owner will become the Other Affected Party and vice versa.

- 2.5.3.3 A Fault is classified as cleared when the Fault Owner informs the Other Affected Party that the Fault has been rectified and the Other Affected Party has verified this.
- 2.5.3.4 The Response Time (maximum thirty (30) minutes) is the period in which:
 - The Parties agree ownership of the Fault i.e. the Fault Owner and Other Affected Party are determined
 - The Fault priority is determined; whether fault is Service Affecting or Non Service
 Affecting. If there is no agreement, then by default the Fault is classified as Service
 Affecting.
 - The Fault Owner specifies expected Restoration Time.
- 2.5.3.5 The Restoration Time is the period in which:
 - · Fault Owner clears the Fault
 - Fault Owner informs the Other Affected Party of progress and when the Fault is cleared.
- 2.5.3.6 Fault Restoration Times are specified in the Parameter Schedule.
- 2.5.3.7 The Verification Time (maximum fifteen (15) minutes) is the period in which the Other Affected Party reports its acceptance or rejection of the Fault clearance to the Fault Owner.
- 2.5.3.8 Disrupted services may be restored promptly on a temporary basis, to be followed by permanent fault resolution at a later date. This form of restoration shall only be used when the temporary restoration costs are considered by the Fault Owner to be reasonable.
- 2.5.3.9 The FCCs will manage information relating to all outstanding faults, including status data. This information will be made available to either Party at agreed intervals or as required.
- 2.5.3.10Both Parties' field staff may liaise directly to resolve a current fault as deemed necessary. However, all information must be communicated to the respective FCCs to ensure the maintenance of Fault records and the taking of appropriate action.

2.5.4 Re-classifications, suspensions and escalation

- 2.5.4.1 At any time during the resolution of a Fault, the Other Affected Party may, with sufficient documented justification, request the change in status of the Fault from NSA to SA at which point the Restoration Time will need to be reviewed. Similarly, the Fault Owner may also request a change in status of a fault from SA to NSA with the required documented justification.
- 2.5.4.2 If for any reason the resolution of a Fault is impeded, due to the Other Affected Party, the Fault Owner may, with proper documented justification, suspend the measurement of the Fault Restoration Time.
- 2.5.4.3 Fault Escalation can be instigated when:

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- a) the Other Affected Party raises concerns about the speed of restoration; or
- b) when the Fault Owner requires greater co-operation from the Other Affected Party; or
- when the target Restoration Time for a Fault, as stated in the Parameter Schedule has elapsed without restoration.
- 2.5.4.4 Initiation of the escalation process shall be done through the Parties' FCCs. The FCCs will be responsible for co-ordinating the entire escalation process and maintaining the escalation records.
- 2.5.4.5 Initiation of the escalation process is done by phone, fax or other agreed media.

 Documented records must be kept of the entire process.
- 2.5.4.6 Every effort shall be made by both Parties to reach agreement at each escalation level before proceeding to the next level.
- 2.5.4.7 The Parties can agree on set escalation deadlines for specific circumstances.

2.6 PLANNED AND EMERGENCY MAINTENANCE

- 2.6.1.1 Planned maintenance encompasses:
 - work that affects, or has the potential to affect the Carrier System or its underlying T1 Network Links or their Quality of Service; or
 - work that affects, or has the potential to affect the Quality of Service provided to Subscriber Connections; or
 - work that affects, or has the potential to affect the Quality of Service provided by the other Party's System.
- 2.6.1.2 The Party planning to carry out planned maintenance activity (the Maintenance Party) should provide at least five (5) Business Days notice to the other Party.
- 2.6.1.3 If the other Party determines that the planned maintenance has the potential to adversely effect its Services, then it should contact the Maintenance Party within three (3) Business Days of the first notice, with a view to negotiating a mutually agreed date for planned maintenance activity.
- 2.6.1.4 Both Parties must be in possession of the final schedule at least two (2) Business Days before the commencement of planned maintenance. If an agreement cannot be reached within this time frame, then the escalation procedure as described in Paragraph 2.5.4 should be applied, with any necessary modifications.
- 2.6.1.5 Emergency maintenance is a type of maintenance work that needs to be carried out immediately due to the impact or potential impact to services. If this work affects, or has the potential to affect the other Party's Services, then, as much advance notice will be given as the situation permits.

2.7 MISCELLANEOUS O&M PROVISIONS

2.7.1 Procedure for alteration of numbers

2.7.1.1 Each Party will notify the other in writing of any alterations to the number ranges (or numbers) to which Calls are to be conveyed pursuant to the Service Descriptions.

CHAPTER 2: OPERATIONS AND MAINTENANCE

Notwithstanding Clause 33 of the Legal Framework the date on which such notification is deemed to be received will be the date of receipt.

- 2.7.1.2 Within three (3) Business Days of date of receipt, each Party will notify all interconnected operators of the alterations to such number ranges.
- 2.7.1.3 Each Party will perform the necessary alterations to its respective Systems to facilitate the alteration to the number ranges within five (5) Business Days of date of receipt and will inform the other Party of completion of the necessary alterations within one (1) Business Day of completing the necessary alterations.
- 2.7.1.4 The Parties will co-operate in order to conduct any necessary joint testing, where applicable, and will use all reasonable endeavours to complete such testing within five (5) Business Days of alteration.

2.8 APPENDICES

APPENDIX	ı

Monthly Performance and issue resolution

APPENDIX II

Forecast Order Plan

APPENDIX IV

Fault Management





Appendix I. Monthly performance and issue resolution

INSTRUCTIONS:

The Service Taker will indicate in Section I, all existing and ordered services. In each month following the report period, both Parties will exchange the information in Sections II and III for each service.

SECTION I – EXISTING & ORDERED SERVICES

Service Tak	er			and the second		
Report date					1 1 1 1 1 1	
Existing net	work links					
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Service no.	Origin	Destination	No. Links	Name	Type IC/OG	No.
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Ordered ser	vices					4
Ordered ser	vices		te de la companya de	Trunk Ro		d see
	vices Origin	Destination	No. Links			No.
		Destination	No. Links	Trunk Ro	oute Type	No.
		Destination	No. Links	Trunk Ro	oute Type	No.
Ordered ser Service no.		Destination		Trunk Ro	oute Type	No.

SECTION II - QUARTERLY REPORT

Service being reported	•		154		100	4.7.				77			
Report period										70			
	Report								_				
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from Switch)			Ŵ.		š.,				, ii				
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(source:Operational Measurements	1 4 4		133		1	1			4	2001			
from Switch)	99.0		× .		e e							61	50
Busy hour (time)			2	300	3	,			1.35	100			
No. of calls in busy hour				Ø" 3						4.77		V.	Q
2. Performance Measures													
Link Availability				£:				er.	4. 7	A. 1944		4.	
Call Completion Rate			51.7		į.				-V-3.	3		7-06	7
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No. of link faults						· .	1.			7.7		100	
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SECTION III - DETAILED FAULT INFORMATION

Service Tal	ker					
Service bei	ng					
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Appendix II. Forecast Service Taker to complete all shaded areas

SECTION I - CONTACT DETAILS

Service Taker									
	Name	Address	Telephone #	Fax#					
Liaison Manager				4 (17 2 0)					
Planning Manager		Water Janes							
Operations Manager		Majo rania							
Fault Control									
Manager									
Service Quality									
Manager									
Project Manager				1.					
		interconnect forecasting and planning manager un							
Signature		Signature							
Name		Name							
Position		Position							
Date		Date		10-0					

SECTION II – NETWORK LINKS FORECAST

Service Taker						TO THE				6 (1)	
Existing point		connection				-					
Service Taker IS	SL S			S	ervice	Supp	lier IS	SL			
	Service			nks fore							
Service	ref.	System	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	TOTAL
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New point of In	tercon	nection									
Service Taker ISL			1,30	S	ervice	Supplie	r ISL				
	Service	Carrier	T1 li	nks fore	cast						
Service	ref.	System	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	TOTAL
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TOTAL					,	· ·			I		

SECTION III - QUARTERLY TRAFFIC FORECASTS

Forecast	Quarter							
Start Date End Date								
			SERVICE TRA	FFIC FORECAST	• • • • • • • • • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·		
Service ref.	Origin	Destination	Total traffic (Erlangs)	Busy Hour period	Busy Hour traffic (Erlangs)	No. T1 Links		
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Appendix III. Order Plan SECTION I – CONTACT DETAILS

Service Taker								
	Name	Address	Telephone #	Fax #				
Liaison Manager								
Planning Manager								
Operations Manager								
Fault Control Manager				New A				
Service Quality Manager				1417.77				
Project Manager	Salar William		31,2114	recorded to				
Signature		Signature						
Name		Name						
Position		Position						
Date		Date						



SECTION II - EXISTING SERVICES

Service Ta	ker		Da	te			
Existing Network Links							
Service	Origin/	Carrier	No of	Trunk			
ref	Destination	type	Links	Route	I/C or O/G	No.	
				name			
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New req	uirements								
Intercon	nect Switch	es			Carri	er sy	stem		
Service Taker	Point code	Service Supplier	Poi	•	Carri type	er	No. Links	Link Usage	Order type new/ change
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	100,424					4			
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Link req	uirements								
Origin	Destination	Trunk route name	Tru rout I/C O/C	te type or	Ne of trunks		Line cod signalling & framing		Ready for service/ termination date
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Appendix IV. Fault Management Form

Both Parties shall maintain a log of the information relating to all reported faults. This information shall be made available to either Party at agreed intervals or as required.

SECTION I - FAULT REPORT

ITEMS	DETAILS
Digicel Fault Log No.	CONTRACTOR :
CCTL Fault Log No.	
Fault report date	
Time detected	(11) Y
Person detected	
Time Reported	
Person Reporting	
Fault owner	
Other Affected Party	

SECTION II - FAULT IMPACT

ITEMS	DETAILS
Fault Type	12 48 1844
(Network / Carrier System)	1446
Fault Status (SA/NSA)	11.10
Critical/Major/Minor Link/Route	
Service Affected	
Supplementary details to aid fault identification	

SECTION III - FAULT RESTORATION

ITEMS	DETAILS
Cause of fault	
Clearance date + time	
Person Clearing	
Person receiving clearance	
Confirmation time	
Person requesting confirmation	
Confirmation response time	
Response time	
Restoration time	
Verification time	

SECTION IV – FAULT RESTORATION ACTIVITIES

DATE	TIME	ACTION TAKEN
9 - A A A A A A A A A A A A A A A A A A		
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Contd\		

Fault type	Classification
Critical Link Failure	100% of total signalling capacity is unavailable
Major Link Failure	50% of total signalling capacity is unavailable
Critical Route Failure	50% or more of total capacity of the route is unavailable to carry traffic.
Major Route Failure	25% to < 50% of total capacity of the route is unavailable to carry traffic
Minor Route Failure	1% to < 25% of total capacity of the route is unavailable to carry traffic



SECTION V - FAULT ESCALATION (if appropriate)

Dispute	details		
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Digicel	escalation list		
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3 Chapter 3 - Billing

3.1 Billing: Introduction

3.1.1.1 This chapter specifies the processes related to billing and accounting applicable to the Services provided between Service Supplier and Service Taker.

3.2 Data Collection and Invoice processing

- 3.2.1.1 For usage based services, CDR based billing will be used in electronic or paper format as the Parties may agree.
- 3.2.1.2 Invoices for the Billing Period will detail each service specified in the Service Schedule together with the Billing Period. Where a service is composed of different rating elements the invoice will also detail which rating elements have been applied and the quantities to which each of the rating elements have been applied.

3.3 Invoice disputes

- 3.3.1.1 In the event that the Service Taker disputes the accuracy of an invoice pursuant to Clause 9.5 of the Legal Framework, the Parties will resolve the dispute in accordance with the procedures in Clause 34 of the Legal Framework and this paragraph 3.3.
- 3.3.1.2 Service Taker will as soon as practicable, but within sixty (60) days of receipt of the invoice, notify the Liaison Manager of the Service Supplier of the dispute including all necessary details. This notification will be in writing by hand delivery, facsimile message or email.
- 3.3.1.3 Where a dispute has arisen, the billing and billed parties will exchange daily summaries for the period under dispute at lowest rating element level to attempt resolution. Failing this, CDRs for the period will be exchanged in the format defined in Paragraph 3.6 of the Joint Working Manual.
- 3.3.1.4 Pursuant to Clause 34.1.3 of the Legal Framework, if the dispute is not resolved within thirty (30) days following referral to the relevant Liaison Managers, either Party may refer the dispute for arbitration in accordance with the procedures specified in Clause 34. The Parties shall co-operate in such determination and will make all necessary and relevant billing data available. Any sums found to be due or overpaid in respect of the disputed invoice shall be paid within thirty (30) days from the date of determination together with interest at the Repo Rate of the Central Bank of Trinidad and Tobago in force from and including the day following the due date for payment until the date of payment in full and whether before or after any court judgement or other award.

3.4 Undetected billing errors

3.4.1.1 In the event that a billing error is discovered that occurred in a previous Billing Period as set out in Clause 11.7(b) or 11.7(c) in the Legal Framework, either party may request a review of the invoice for any of those Billing Periods, provided that the request is made within three (3) months of the date of the start of the current Billing Period. In the event of overpayment, the over-payer shall be entitled to a refund of the overpayment. In the event of underpayment, the under-payer shall be obliged to pay the amount due. Any sums found to be due or overpaid in respect of the previously

CHAPTER 3: BILLING Page 33 of 49

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undetected billing error shall be paid within thirty (30) days from the date of determination together with interest at the Repo Rate of the Central Bank of Trinidad and Tobago in force from and including the day following the due date for payment until the date of payment in full and whether before or after any court judgement or other award.

3.4.1.2 In the event of billing information being permanently unavailable to either party, the party unable to generate the bill may estimate the amount due based on an estimating method agreed by both parties in advance. The party performing the estimation will supply the detailed data and calculation on which the estimate is based.

3.5 Late usage

3.5.1.1 Where CDRs are only temporarily unavailable, they should be included in the subsequent Billing Period as late usage. This late usage should appear on the invoice separately from usage that occurred during the Billing Period which the invoice covers. At the latest, any late usage should be billed within 3 months of its occurrence.

3.6 Validation

3.6.1.1 In cases where dispute resolution requires that CDRs be exchanged, the following format will be used. Alternative formats may be used when agreed by both Parties. A process will be defined by the Parties' Liaison Managers, to identify and act upon relevant discrepancies between Billing Data.

Field	Field Size	Format	Meaning		
a-number	28	Alphanu meric	The dialling number		
b-number	28	Alphanu meric	The dialled number		
Point of Connection	7	Alphanu meric	The Digicel interconnect office		
Incoming route	20	Alphanu meric	Populated for Calls sent to Digicel		
Outgoing Route	20	Alphanu meric	Populated for Calls sent by Digicel		
Start date/time	16	Numeric	Call start time format YYYYMMDDHHMMSShh		
Duration	8	Numeric	Call duration format HHMMSShh		

3.7 Retention of Billing Data

3.7.1.1 Each Party will keep Billing Data in an appropriate form for at least one (1) year.

- 4 Chapter 4 Testing
- 4.1 Interconnect Testing Objectives & Scope
- 4.1.1 Objectives
- 4.1.1.1 This chapter details the approach for testing the interconnection between Digicel and CCTL.
- 4.1.1.2 The objectives of the testing are:
 - to maintain the integrity of both networks
 - to meet the contractual specifications
 - to locate and enable resolution of faults with the interconnection
 - to ensure that billing is completed correctly.
- 4.1.2 Scope
- 4.1.2.1 The chapter describes:
 - process to support the testing
 - project plan to support the testing
 - roles and responsibilities
 - phases of testing with entry and exit criteria
 - detailed test cases
 - results sheets
 - how to manage a test failure

4.2 Interconnect Testing Framework

4.2.1.1 The following framework is to be used to support interconnect testing.

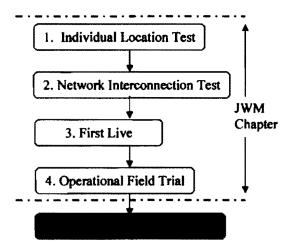


Fig. 1 - Process flow for Interconnect Testing.

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Individual Location Test	This phase of the testing verifies that the network of Digicel and CCTL are suitable for interconnection. Each Party must demonstrate that its interface conforms to the technical chapter (chapter 1) of the Joint Working Manual.	
Network Interconnection Test	The Network Interconnection Test ensures the interoperability of the Systems, management of the Network Links, tests whether all types of Calls can be made and includes CCSS7 tests and exchange of CDR records.	
First Live Traffic	This is the first trial of the interconnection in a test field environment with limited billable traffic. This phase considers maintenance and fault handling procedures, and verifies that the correct bills are delivered. It also tests that the roles and responsibilities are clear.	
Operational Field Trial	This is the phase prior to the general operation of the interconnection. During this phase, fine-tuning of operational procedures takes place. All functions must be verified including start-up/shut-down procedures, disaster recovery, security, and performance under severe load. This phase uses non-billable and billable traffic depending on the test.	

Table 1 - overview of proposed interconnect testing

4.3 Test Specification Structure

4.3.1.1 Each of the test phases will follow the same structure to derive and document the tests.

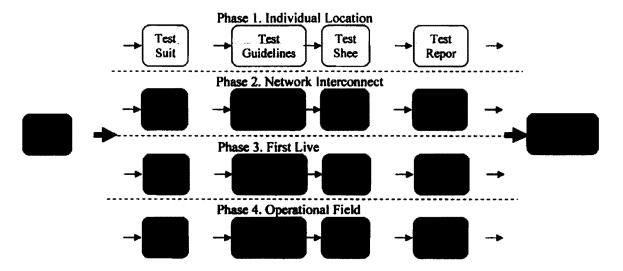


Fig. 2 - Structure of each test phase

Test Specification

4.3.1.2 The Test Specification contains the total set of Test Suites and Test Guidelines agreed between both parties to support the testing.

Test Suite

4.3.1.3 The Test Suite is a set of defined Test Guidelines that relate to a particular functionality e.g., billing, inter-operability. A Test Suite can be tested in whole or in part against any of the four test phases.

Test Guidelines

- 4.3.1.4 The Test Guidelines contain:
 - list of all the test cases to be completed
 - justification for test cases
 - detailed test case procedures
 - test case pass/fail criteria
 - · details of other test data to be recorded
 - planning to co-ordinate and track the testing progress.

Test Sheet

4.3.1.5 The Test Sheet contains an accurate record of the test completed and the outcome of the test.

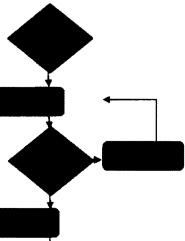
Test Report

- 4.3.1.6 The Test Report is a summary of the tests executed. It also provides details on faults, re-tests and exceptions. The Test Report is signed by both parties and is proof that the testing was completed. It is the main input to deciding whether the current phase of work can be exited.
- 4.3.1.7 The Final Test Report is compiled at the end of all the testing and highlights any outstanding faults, issues and concerns. It is the main input into deciding whether the Joining Service is ready to become fully operational.

4.4 Test Phases

CHAPTER 4. TESTING

4.4.1 Individual Location Test Process



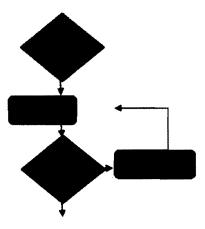
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- 4.4.1.1 The goal of the Individual Location Test is to determine whether the infrastructure of each Party exhibits sufficient functionality to interconnect. The tests consider the following areas:
 - Conformance to relevant communication standards and technical specifications as described in the technical chapter
 - Implementation of the charging mechanisms
 - · Charging calibration.
- 4.4.1.2 Each Party performs its own Individual Location Test. If either Party fails the testing the interconnection cannot proceed until the fault(s) have been corrected. Each Party is responsible for correcting any faults, and carrying out any modifications or additions to its own interconnection equipment to rectify the situation.

Entry Criteria	Signed Order Plan / agreement on the connection; Test Guidelines completed for this phase; Each Party has sufficient resource available to complete this phase of testing; Provisional project plan drafted.
Exit Criteria	Each Party has completed Individual Location Test and passed all tests; List of known deviations and imperfections available; No known fatal, inadmissible or major faults; Test results made available to each party; Test Report is approved and signed by both parties.

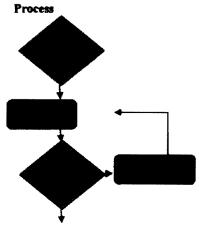
4.4.2 Network Interconnection Test Process



- 4.4.2.1 This phase of testing minimises operational risk for both Parties. The Network Interconnection Test tests consider the following areas:
 - · Interoperability of the signalling and billable traffic
 - Checking whether charging mechanisms of both Parties are in line.

Entry Criteria	Project Plan, documented and signed by both parties; List of known deviations and imperfections available; Test Guidelines have been completed for this phase; Both Parties have sufficient resource available to complete this phase of testing; The interconnection between Digicel's ISL and CCTL's ISL is ready for this phase of testing.
Exit Criteria	Successful completion of the Network Interconnection Tests; No known fatal, inadmissible or major faults; Planned solution for all faults has been documented; Test results made available to each party; Test Report is approved and signed by both parties.

4.4.3 First Live Traffic



- 4.4.3.1 The First Live Traffic test determines whether the networks of both Parties are correctly interconnected. In addition to testing the basic interconnection, billing and supporting processes are tested during the First Live Traffic tests.
- 4.4.3.2 Billable traffic should be used during this phase of the testing.
- 4.4.3.3 The First Live Traffic tests consider the following areas:
 - Interoperability of signalling traffic
 - Service tests (can all types of calls be established)

CHAPTER 4 TESTING

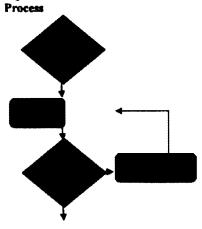
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- Routing tests (is CCTL reachable from all locations)
- Whether charging mechanisms of both Parties are in line
- Bill test (on basis of CDRs from test traffic)
- Process test (e.g. maintenance and error procedure).

Entry Criteria	List of known deviations and imperfections available;		
·	Both Parties have sufficient resource available to complete this phase of testing;		
	The interconnection between Digicel's ISL and the CCTL ISL is fully installed and operational;		
	List of known deviations and imperfections available;		
	Test Guidelines have been completed for this phase;		
	O&M procedures are available.		
Exit Criteria	Successful completion of the First Live Traffic Tests;		
	No fatal, inadmissible or major faults are present;		
	Planned solution for all faults has been documented;		
	Test results made available to each Party;		
	Test Report is approved and signed by both Parties.		

4.4.4 Operational field trial



4.4.4.1 The Operational Field Trial is the phase prior to general availability of the interconnection. During the Operational Field Trial all outstanding faults from previous test phases have to be resolved. During this phase billable traffic is passed for the first time. The objective of this Trial is to ensure that the operational and maintenance procedures are effective to deal with any issues that will arise.

Entry	No changes in the interconnection since conclusion of the previous phase of
Criteria	testing;
	List of known deviations and imperfections available;
	Test Guidelines completed for this phase;
	Both Parties have sufficient resource available to complete this phase of testing.
Exit Criteria	No faults are present;
	Support for further Field introduction is available;

Performance and stability statistics are within the limits defined in the contractual agreement;
Applicable O&M procedures approved;
Test results made available to each Party;
Operational Field Trial Test Report is approved and signed by both Parties;
Final Test Report is approved and signed by both Parties.

4.5 Test Sheets & Report

- 4.5.1.1 The Test Sheets contain the results of executed tests for each test phase. These results can be positive (passed), negative (failed) or impossible to execute (inconclusive); and where applicable additional information may need to be recorded.
- 4.5.1.2 For each phase of testing a test report must be completed. In all cases the Test Report should be completed and signed by both Parties. The Test Report should at a minimum reflect what tests have been performed, whether the result was as expected or if deviations were observed.

4.6 Test Suites

4.6.1.1 The interconnect Test Suites required are shown below. Within each suite there are key areas of testing, which are shown below. Agreement to this needs to be confirmed through the Project Plan and then further detailed in the Test Guidelines.

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	Test Suites	Tests Phases			
		ILT	NIT	FLT	OP
1	Conformance tests:				
	1. Protocol conformance	X			
	2. Electrical conformance	X			
	3. EMC conformance	X			
	4. Local Operation Tests	X			
2	Interoperability tests:				
	1. End to end transmission		X		
	2. Network Synchronisation		X	X	X
	3. SS7 signalling		X	X	X
	4. Network routing		X	X	X
	5. Network management		X	X	X
3	Stability and Security tests:				
	1. Load tests	X	X		
	2. Stress tests (fault		X	X	
	situations)		Х	X	
	3. Fraud				
4	Service tests:				
	1. Services from Digicel to	l		X	X
	CCTL			X	
	2. Services from CCTL to			X	X
	Digicel		ļ	X	X
	3. Changed services				X
	4. New services				
5	Billing:				
	1. Charging calibration	Х	X	X	X
	2. Charging per service		x	X	Х
	(CDRs)			Х	Х
	3. Billing aggregates			X	Х
	4. Billing service				
6	Processes:				
	1. Service & Element			Х	Х
	management				
	2. Operation processes			X	X
	3. Maintenance processes			X	Х
	4. Customer processes			X	X

4.6.1.2 The Test Suites are described in overview below.

Conformance Testing

4.6.1.3 The test suite confirms that the protocol supported meets the technical specification. Conformance testing deals with the behaviour of the protocol, and not with processing capacity under critical load conditions. It may also address invalid behaviour testing.

Interoperability Testing

4.6.1.4 An Interoperability test involves at least two networks that are interconnected. In these tests it is verified whether elements of a procedure (including parameters) across the common boundary, are in compliance with the specification. The test sequences across

CHAPTER 4. TESTING

the point of observation are not generated or inserted at the point of observation itself, but at interfaces contained within the systems under test.

Stability and Security Test

4.6.1.5 Stability tests consist of load and stress tests. Load tests are tests of the interconnection in situations of relatively heavy use. Stress tests are tests in which fault situations are introduced in the interconnection. The point of observation is the common boundary between the interconnected systems. In both tests it should be verified that the interconnection works under extreme circumstances. Network fraud testing is included in this test suite.

Service Test

4.6.1.6 These tests ensure the services supplied by either Party will operate in a manner that is compliant with the Service Descriptions and technical characteristics.

Billing

4.6.1.7 Billing verifies that the charging mechanism (based on CDR generation) supported by both parties is accurate and meets the agreed specification.

Processes

4.6.1.8 Process tests involve the testing of operation, maintenance and customer processes.

They also include documentation, training of personnel and support of the interconnection. In some of these areas an actual test case cannot be written to test a process and the relevant people, as part of the exit criteria, will review the process.

4.7 Fault Handling procedure to be used in testing phases

- 4.7.1.1 If a Fault is identified in a testing phase it should be registered and the test manager for the phase informed. The Fault will then be classified, passed on to the installation / development team and resolved. When the Fault is resolved the new implementation may need to be tested again and the result recorded. When the retest is successful, the Fault can be closed on the Fault list that the test manager controls.
- 4.7.1.2 The test teams of either party can detect faults. The test manager for the corresponding test phase will issue a fault report in the format set out in Appendix II and register it on the fault list in the format set out in Appendix III. The fault report shall include fault classification. The classification is defined by mutual agreement between the test managers. If there is a conflict about the classification, the Overall Test Managers will be consulted.
- 4.7.1.3 The fault report and fault list will use the same numbering convention so that a fault number will relate to only one specific fault throughout the end to end fault resolution process. The numbering convention consists of x.y. Where x indicates the phase number when the fault was identified, and y is a number allocated to identify the fault, starting at one.

Phase Name	Phase Number (ie x.y)
Individual Location Tests	l.y
Network Interconnection Tests	2.y
First Live Traffic	3.y
Operational field trial	4.y

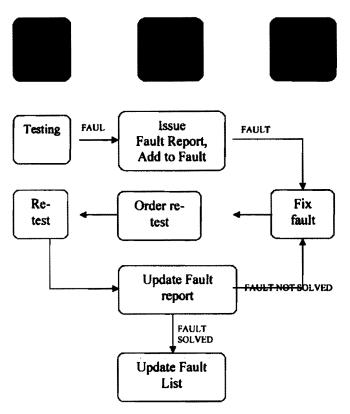
4.7.1.4 The operations and development team is responsible for resolving the fault. Once the fault is resolved the team updates the fault report with details of the solution. If the fault

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is solved before the end of the related test phase, the test manager organises a retest, otherwise the Overall Test Manager should arrange a retest. When the retest is successful the fault report can be closed. If the retest is not successful, the fault is sent back to the operations and development team. Again re-testing is necessary until the fault is resolved.

4.7.1.5 Where faults have created extreme delays due to repeated fault location, resolution and re-testing, the Overall Test Managers will decide whether to progress with the fault resolution. This will avoid a loop in the fault handling procedure.



4.8 Fault Classification

4.8.1.1 There are five categories to which a fault can be allocated during testing. A fault must always be allocated to one of these categories and for each fault it should be determined which operator will take responsibility for resolving it. Solutions for the faults should be made available within the time agreed for each fault category.

Fault Category	Response Time	
Fatal	Immediately	,
Inadmissible	3 days	
Major	4 weeks	
Minor	before Operational Phase	
Imperfections	before general availability	

Fatal faults

- 4.8.1.2 A fault is classified 'fatal' if this fault causes a situation in which it is not possible or useful to continue testing. Fatal faults have a significant impact on the test schedule, as all test activities will be stopped until the fault is rectified. Fatal faults therefore need to be attended to immediately.
- 4.8.1.3 Inadmissible faults. Inadmissible faults are faults which are not allowed in the operational phase but can be allowed in a test phase. Although a test phase can be continued if such a fault occurs, the solution for the fault has to be available within 3 days unless otherwise agreed.

Major faults

4.8.1.4 Major faults affect the quality of the service in operational status. After a major fault has been detected, the solution for the problem has to be available within four weeks unless otherwise agreed.

Minor faults

4.8.1.5 Minor faults also affect the quality of a service in an operational situation. However these faults are not perceived by an end-user and are less urgent to resolve. Both parties need to determine the period of time in which the solution for these faults need to be made available/ deployed and must be completed by at least the start of the operational phase.

Imperfections

- 4.8.1.6 Imperfections are all faults that do not affect the Quality of Service. The faults must be solved before general availability. Depending on the possibility, the solution may be covered in future upgrades.
- 4.8.1.7 Where there are issues concerning fault classification and/or the cause of the fault, the Overall Test Managers should be consulted.
- 4.8.1.8 Faults have to be documented in the corresponding test reports and handled as described in the previous section.

4.9 Additional roles and responsibilities for testing

4.9.1.1 The acceptance of the interconnection is the responsibility of both parties who must verify the quality of the testing process and the test results. The following sections describe the roles and responsibilities that need to be filled in order to keep the test process clear and manageable. The project plan will contain details of test organisations.

Overall Test Manager

- 4.9.1.2 At each stage of testing there needs to be regular contact between the operators to track the progress of testing and resolve any issues that could arise. Each operator will appoint a person who is in charge of testing and known as the Overall Test Manager. The Overall Test Managers should overview all test activities, planning and constantly monitor interconnect testing progress.
- 4.9.1.3 The Overall Test manager has the following responsibilities:

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- completion of the project plan
- · tracks progress of each test phase
- · checks entry and exit criteria for each phase
- overall ownership of the Fault List for the operator
- confirms completion of all test phases
- · delivery of the final test report
- delivery of interconnection to the O&M phase.

Test Manager

4.9.1.4 For each phase a test manager will be assigned with the following responsibilities:

- detailed planning of the test phase (documented in the Test Guidelines);
- · execution of the tests for the corresponding test phase;
- reporting testing progress to the Overall Test Manager;
- issuing Fault Reports;
- maintaining the Fault Report list (with the Overall Test Manager);
- completing the Test Report.

4.10 Interconnect Testing Documentation

4.10.1.1 The interconnect testing documentation is as follows

	Document	Responsible persons
Overall	Project Plan	Overall Test Manager
	Fault List	Overall Test Manager
	Final Test Report	Overall Test Manager
Individual	ILT Test Plan	ILT Test Manager
Location Test		
	1LT Test Guidelines	ILT Test Manager(s)/ ILT Testers
	Fault Reports	ILT Test Manager(s)
	ILT Test Report	ILT Test Manager(s)
Network	NIT Test Plan	NIT Test Manager(s)
Interconnection		
Test		
	NIT Test Guidelines	NIT Test Manager(s)/ NIT Testers
	Fault Reports	NIT Test Manager(s)
	NIT Test Report	NIT Test Manager(s)
First Live	FLT Test Plan	FLT Test Manager(s)
Traffic		
	FLT Test Guidelines	FLT Test Manager(s)/ FLT
		Testers
	Fault Reports	FLT Test Manager(s)
	FLT Test Report	FLT Test Manager(s)
Operational field trial	OFT Test Plan	OFT Test Manager(s)
	OFT Test Guidelines	OFT Test Manager / OFT Testers
	Fault Reports	OFT Test Manager(s)
	OFT Test Report	OFT Test Manager(s)

Appendix I. Summary of Interconnect Tests

SECTION I - PHYSICAL INSPECTION

Ensure joint box termination points meet agreed standard.

Ensure networks of both Parties are prepared to agreed standard

Ensure both Parties have interfaces that conform to agreed standards

Test electrical wiring & grounding

SECTION IV – TEST CALLS

Origination

Routing

Destination

Transmission Quality
Billing Verification/ Validation
Billing Record Processing

SECTION II – LINK TESTS

Link Code Signalling Compatibility
Framing Compatibility

Bit Error Test (BET): 0 over 24 hrs. Frame Loss: 0 over 24 hrs.

DSX-1 Standards Volt Standard

SECTION V – SYSTEM FAILURE & ALARM TESTS

Verify all relevant alarm points are wired.

Generate system alarm and validate expected notification.

Test system failure and recovery alarms. Conduct system back-up & recovery procedures.

Perform system security tests.

SECTION III - C.7 SIGNALLING TESTS

Link State Control

Transmission & Reception Control

Signalling Link Management

Changeover Changeback

Forced Rerouting

Controlled Rerouting

Signalling Route Management

Circuit Supervision

Normal Call Set-up Ordinary Calls

SECTION VI – OPERATIONAL FIELD TRIAL

Operate system for agreed period.

Verify system performance under load conditions.

Monitor service quality during high traffic. Modify and re-test as required.



Appendix II. Fault Report Template for testing

Fault Report between	_	Taama)			
Test Case Number:	ted by one of the Te	at reams)			
Description of test of					
Expected result:					
Observed result:					
Comments (concern hints)	ing the configuratio	n, related pro	oblems, conse	equences,	
Name:	Name: Date: Signa			ture:	
Part II (to be compl		gers)			
Required a	ection(s)	Who	Deadline	Fault classification (Note 1)	
Digicel Test Manag	er Date:		Signature	:	
CCTL Test Manage	er Date: "		Signature	•	
•	= minor, *** = majo	•	·	** = fatal	
Action taken to res		<u> </u>			
Remaining open iss	ues:		Re-test necessary (Y/N)		
Name:	Name: Date:		Signature:		
	leted by the test tea	m)			
Result of the re-test					
Comment:	•				
Name:	Date:		Signature	*	

Appendix III. Fault List

Problem List between Digicel and CCTL

Reference Number	Date Logged	Owner	Priority	Status	Date Expired	Description	Action By
		·			Z .		
		2.01		Market and a soul	ing Declaration		
		The state of			Ar. W.		NV.
4	er a grand a			建筑大 大。			
	Jan J. G. All		- 15 fe				Majorak
					and the second of the second		
	<i>,</i> "		en in Allegaig				

BE

Digicel

Interconnection Agreement with Columbus Communications Trinidad Limited

Tariff Schedule - Schedule 6

PRIVATE & CONFIDENTIAL



Tariff Schedule

All tariffs in this schedule are presented excluding applicable taxes but are subject to those taxes at the prevailing rate.

Charges that are not included in this Tariff Schedule but which have been referenced from the Service Descriptions, Legal Framework or Joint Working Manual, including, but not limited to, payment for forecasts that are out of bandwidth and payment for delays in Service introduction, will be determined on the basis of all reasonable costs incurred by the Service Supplier unless it is agreed by both Parties to waive such costs incurred.

Call Durations are specified in this document as a charge of TT\$ per 60s. However, pursuant to the terms of the Service Descriptions, Calls will be measured to an accuracy of $1/10^{th}$ of a second, and the Charges will be the sum of the month's measurements rounded to the nearest minute. Further detail of the billing process and procedures can be found in the Joint Working Manual.

PART 1.

TERMINATION SERVICES

PSTN Terminating Access Service

Usage Charges

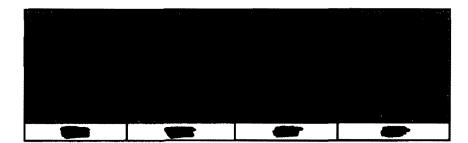
Payable by Service Taker to Service Supplier



PLMN Terminating Access Service

Usage Charges

Payable by Service Taker to Service Supplier

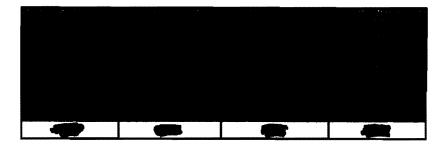


pc @

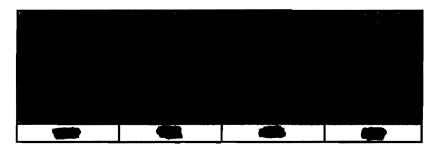
PART 3. SPECIAL ACCESS SERVICES

National Free-phone Access Service

Usage Charges
Payable by Service Supplier to Service Taker, where Service Taker is a Domestic
Mobile Operator



Usage Charges
Payable by Service Supplier to Service Taker, where Service Taker is a Domestic
Fixed Operator



PART4. PSTN TRANSIT SERVICES PSTN Transit Service

Usage Charges
Payable by Service Taker to Service Supplier



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		-	