

THE HASHEMITE KINGDOM OF JORDAN



TELECOMMUNICATIONS REGULATORY COMMISSION

TRC Decision on the Reference Interconnection Offer
For
Call Termination in Mobile Networks

Issued by TRC Board Decision No. (3-10/2013) dated (24/09/2013)

Hashemite Kingdom of Jordan
Telecommunications Regulatory Commission

**Decision on the approval of the Reference Interconnection Offer (RIO) for Call Termination
in Mobile Networks**

Issued pursuant to Articles 6(a), 6(b), 6(e), 12(a/2) and 12(a/6) of the Telecommunications Law
No. (13) of 1995 and its amendments

TRC Board Decision No. (3-10/2013) dated (24/09/2013)

The Telecommunications Regulatory Commission of Jordan hereby decides with respect to Petra Jordan Telecommunications Company (“Orange Mobile”), Umniah Mobile Company (“Umniah”), and Jordan Mobile Telephone Services Company (“Zain”).

- 1. to approve the Reference Interconnection Offer (RIO) for Call Termination in Mobile Networks as per the text in this decision;**
- 2. to oblige Petra Jordan Telecommunications Company (“Orange Mobile”), Umniah Mobile Company (“Umniah”), and Jordan Mobile Telephone Services Company (“Zain”) to amend their reference offers submitted to TRC accordingly and to publish this amended reference offer on their respective homepages at the latest 14 days after being formally notified by the TRC in writing.**
- 3. further to the approval according to Section 1 and 2 above, Petra Jordan Telecommunications Company (“Orange Mobile”), Umniah Mobile Company (“Umniah”), and Jordan Mobile Telephone Services Company (“Zain”) are obliged to include a price list with all relevant prices, as approved by TRC from time to time, into their Reference Interconnection Offers, at the latest 30 days after being formally notified by the TRC in writing.**

The text below is a “generic” Reference Interconnection Offer applicable to all relevant operators. To identify the operator that has been designated as enjoying SMP and thus is subject to the obligation to provide a RIO it is called “Mobile Termination Operator” (MTO) in this document. All pictures, graphs e.g. in Annex D, Appendices E, 2, 3, I etc. containing names of licensees are to be regarded as indicative and illustrative examples.

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1 INTRODUCTION

1.1. Based on TRC decision on mobile markets review dated 21 December 2010 hereinafter referred to as "TRC Decision" where new obligations have been imposed on the Mobile Termination Operators (MTO), this Reference Offer implements the regulatory obligations and is made available to all Licensees. This offer includes Service Schedules describing the Interconnection Services offered by MTO.

1.2. MTO hereby offers to interconnect the MTO Network with the network of a Licensee in accordance with the obligations set out in the TRC Decision, and to supply services and facilities on the terms and conditions as provided for in this Reference Offer.

1.3. The Licensee, by requesting interconnection with MTO, warrants that it has in full force and effect the authorizations stipulated in the TRC Regulations to enter into an agreement arising from an acceptance of this Offer and accepts the obligations placed upon it by the TRC Regulations.

1.4. The Licensee and MTO recognize the necessity of effective interconnection of their telecommunications systems in the provision of quality telecommunication services to their respective customers. MTO and the Licensee believe that a fundamental principle of interconnection is to enable the customers of both parties to communicate effectively with customers of the other network and that accordingly:

1.4.1 Interconnection and the introduction of development of competition shall not be unnecessarily constrained by technical obstacles or limitations which have no justifiable objective basis.

1.4.2 The Licensee and MTO shall exchange information willingly in order to make interconnection effective, without prejudice to commercial confidentiality.

1.4.3 The Licensee and MTO shall at all times, as far as is reasonably possible, act so as to facilitate the speedy and effective operation of interconnection, and to overcome any technical problems under this Offer, to the benefit of Jordanian customers and to their mutual advantage.

1.4.4 The Licensee will cooperate with MTO to achieve feature transparency between interconnected networks of Advanced Calls Services as far as is reasonably possible.

- 1.4.5 The Licensee and MTO shall provide to each other, upon request, details of active and in use number ranges allocated to each party and defined within their own networks.
- 1.4.6 The Licensee and MTO shall work jointly to ensure the overall quality of the calls which are made via an interconnection point and their own networks. The Licensee and MTO shall adopt general principles regarding standards, techniques and methods in order to guarantee the quality in telecommunication networks and services, as stipulated in ITU-T and ETSI appropriate technical standards.
- 1.4.7 In implementing services and facilities under this Offer, the Licensee and MTO shall endeavor to minimize the attendant costs, provided that this does not result in additional cost attribution to other products and services provided by either the Licensee or MTO and is consistent with agreed quality standards.
- 1.4.8 MTO and the Licensee shall treat each other in a fair and nondiscriminatory manner in all aspects of interconnection.

2 DEFINITIONS AND INTERPRETATION

2.1. In this Reference Offer, except if the context requires otherwise, words and expressions are as defined in Annex A.

2.2. In the event of conflict or ambiguity between the terms defined in the TRC Regulations and the terms defined in the Licenses or in the governing laws and Telecommunications Law in respect of this Offer, the following order of precedence shall apply:

- a) The Telecommunications Law
- b) TRC Regulations
- c) The License.

3 NETWORK INTERCONNECT

3.1. Interconnection between MTO's Network and the Licensee's Network shall be achieved through one or more interconnect links, which together form an Interconnect Path. Each interconnect link shall create a connection between one of MTO's Interconnect Nodes and one of the Licensee's Interconnect Nodes. Details of how this shall be achieved are set out in Annex D. Interconnect is available at each of MTO's Interconnect Nodes listed at Appendix D. The Licensee may interconnect at any of these nodes subject to that interconnect link being bilaterally agreed in the Network Plan as defined in clause 9 hereof. The technical standards supported by MTO network for the purposes of Interconnect are set out in Annex D as amended from time to time.

3.2. On requesting interconnection from MTO, the Licensee shall:

3.2.1 Provide a detailed statement of its technical requirements for interconnection services in respect of this Reference Offer. This statement of requirements must be sufficiently detailed for MTO to design a solution for the Licensee's interconnection requirements. Such list can cover inter alia (a) set up or planning of new points of interconnection, (b) set up or changes to interconnect link capacity, (c) set up or changes to the transmission capacity, (d) set up or changes to the signaling network, (e) set up or changes to call routing, (f) set up or changes to new numbering blocks, (g) to determine the service carried over interconnection link(s), national or international, in order to configure the interconnection link to comply with licensee's need.

3.2.2 If the statement of requirements is considered by MTO to be insufficient to set out a comprehensive technical solution, MTO shall notify the Licensee within 5 (five) working days of receipt of the statement of requirements. This notification shall include a list of detailed questions and requests for data that are not supplied within the Licensees' statement of requirements.

3.2.3 If the statement of requirements is sufficient to enable MTO to design and document a comprehensive technical solution for the Licensee's interconnection requirements, MTO shall dispatch a documented solution to the Licensee within 1 (one) month of receipt of the satisfactory statement of requirements.

3.3. MTO and the Licensee shall negotiate in good faith with a view to reaching an agreement on a comprehensive Network Plan within 1 (one) month of MTO's notification of the proposed technical solution being received by the Licensee, unless otherwise agreed between MTO and the Licensee in writing.

3.4. In the event that MTO and the Licensee fail to agree on the terms and conditions of an interconnection agreement within one (1) month from the first request in writing for interconnection by the Licensee, MTO or the Licensee may by notice in writing request that the TRC adjudicate between them. The decision of TRC in such case is binding on the MTO and the Licensee and can be appealed to the competent Jordanian courts.

3.5. Once the technical solution is agreed between MTO and the Licensee, the plan shall become known as the Network Plan which shall be included in the proposed Interconnection Agreement between MTO and the Licensee.

3.6. Interconnect paths shall be provided using either collocation, infrastructure sharing or Customer Sited Interconnect (CSI). MTO shall use its best efforts to offer collocation and infrastructure sharing subject to availability. In case of non-availability MTO will try to offer alternative solutions. In case MTO only offers CSI and the Licensee has reasonable doubts about the alleged non-availability of collocation and infrastructure sharing, the Licensee can request TRC to oversee whether MTO's information about non-availability is correct.

3.7. The actual point of interconnect shall be where MTO's Network connects with the Licensee's Network and shall be a physical point where the connection can be disconnected in order to conduct testing. MTO and the Licensee shall be responsible for providing sufficient capacity on an appropriate transmission medium from the point of interconnect to meet the agreed forecast traffic contained in the Network Plan. Each Licensee shall be responsible for the operation and maintenance of this transmission medium. Each Licensee shall be considered as owning the transmission equipment and other associated infrastructure up to his own Digital Distribution Frame (DDF). MTO and the Licensee shall provide one DDF at one end of the interconnect link.

3.8. Separate interconnect paths may be provided to carry the traffic of each Licensee. The cost of both installation and on-going maintenance of each interconnect path shall be borne in full by the Licensee originating the traffic on this path. Bidirectional paths may however be utilized where this represents the optimal method of handling the traffic consistent with sound engineering practices. In this instance costs for installation and on-going maintenance shall be shared proportionally based on the traffic volume of each operator. For the avoidance of doubt, neither MTO nor the Licensee shall be obliged to convey traffic to the other over bi-directional paths.

3.9. The ordering periods for new interconnect paths shall be as defined in Annex E.

3.10. If MTO and the Licensee reach agreement on the terms and conditions of interconnection, the proposed agreement shall be submitted to the TRC by the MTO for TRC approval. Implementation of the Network Plan shall not commence prior to approval of the TRC being provided in writ-

ing, unless implementation of the Network Plan is agreed in writing by MTO and the Licensee or after 30 days have passed after submission for approval to the TRC if no comments are provided by the TRC to MTO.

3.11. For the avoidance of doubt, and notwithstanding the interconnection of the parties' networks, neither party shall hand over to the other party, nor has an obligation to convey, Telephone calls or other traffic of any category, unless the other party has agreed to provide the relevant service under the Interconnection Agreement.

4 INTERCONNECT SERVICES

4.1. The Service Schedules attached to this Offer detail the services MTO provide over interconnect links under this Reference Offer.

4.2. The Basic Service Level Offer details the timescales for delivery of services and the service quality standards provided.

5 CHARGING FOR INTERCONNECT SERVICES

5.1. The charging structure for each interconnect service is described in each Service Schedule. The method of reviewing the charges given in the Service Schedules is described in Clause 22 hereof.

5.2. The charges for each service included in this Reference Offer are set out in the Price List. The Price List shall be published and notified to the Licensee by MTO, following approval by TRC as applicable, with not less than 28 (twenty-eight) day notice of any new charges for interconnect services.

5.3. The chargeable time for each voice Call, unless specifically stated as otherwise, shall be the "conversation time" in accordance with Section 1.2.2 of CCITT Recommendation D.150 (version 06/99).

5.4. Charges shall not be payable under this Reference Offer by either Licensee to the other for unsuccessful calls. Successful calls shall be defined as in the relevant Service Schedules.

5.5 All charges are expressed in Jordanian Dinars (JDs) or Fils. The charges in the Price List are exclusive of government taxes (which nevertheless shall be payable by the billed party) unless such charges are stated expressly to be inclusive of government tax.

6 MEASUREMENTS OF TRAFFIC VOLUME

6.1. The responsibility for traffic volume measurements shall reside with the Billing Licensee responsible for that particular interconnect service.

6.2. Both MTO and the Licensee shall ensure that it records measurements of traffic volumes in sufficient detail to meet its obligations as outlined in the Service Schedules attached hereto.

7 BILLING AND PAYMENT

7.1. MTO and the Licensee shall bill and reimburse the other in accordance with the procedures outlined in Annex B.

7.2. The charges in this Reference Offer are exclusive of government taxes unless such charges are stated to be inclusive of government taxes. However government taxes shall be charged on invoices resulting from an acceptance of this Reference Offer.

7.3. Invoices are due and payable in Jordanian Dinar. Invoices are payable within 30 (thirty) Calendar Days (the Due Date) from the date of dispatch of the invoice. Relevant taxes shall be added, where applicable, to all or any part of the charges in preparing invoices. Payment shall be made by either cheque or electronic transfer

7.4. Notwithstanding Clause 7.3 MTO and the Licensee shall have the right to agree on shorter payment periods or advance payments.

7.5. MTO and the Licensee shall provide to the other, invoices of all amounts due to it, calculated in accordance with the Price List.

7.6. Legal interest may be applied for the delay in payment in the due date.

7.7. Charges shall only be payable for successful calls where the call is answered and an answer signal is sent in the backward direction. For the avoidance of doubt calls which reach tones for busy, number not obtainable or recorded announcements injected by the network are treated as unsuccessful calls. Calls to voice mail systems, call centres or calls diverted or forwarded to another end user number either nationally or internationally, which are answered, are successful calls.

7.8. The parties agree to use reasonable endeavors to detect and identify any artificial inflation of traffic caused by suspected fraudulent actions or abuse of third parties and to share such information with a view to co-operation and measures to prevent such action occurring in the parties' systems.

8 BANK GUARANTEE

8.1. The Licensee shall provide MTO with an unconditional bank guarantee, the value and the terms of which shall be agreed upon in writing by MTO and the Licensee prior to implementing the Interconnection Agreement. This amount shall not exceed the value of an interconnect link multiplied by the number of ordered and implemented interconnect links. A minimum amount of 4 (four) times the annual price of an interconnect link applies. In case of a sudden increase in the traffic, MTO is entitled to request the Licensees to increase the amount of the bank guarantee in order to cover the expected exposure, the Licensee should adhere to MTO request within one week from the formal notification; otherwise MTO shall have the right to suspend the service. The bank guarantee, including its value, shall be maintained for all times.

8.2. Notwithstanding Clause 19.2, in the event that the Licensee fails to maintain the bank guarantee in accordance with clause 8.1 above, any subsequent serving of a breach notice by MTO shall require such breach to be remedied by the Licensee within 10 (ten) working days.

9 NETWORK DESIGN AND PLANNING

9.1. Network design and planning of the network interconnect shall be in accordance with the Network Plan as agreed between MTO and the Licensee. The Network Plan shall relate to the next 2 (two) years.

9.2. The Network Plan shall be reviewed and updated by MTO and the Licensee on an annual basis and agreed by both Licensees by June 1st of each year, unless a more frequent review is agreed between MTO and the Licensee.

9.3. MTO and the Licensees shall provide to each other forecasts of traffic over each transport link between their networks and shall revise the forecasts for existing interconnect Links as per the procedure set out in Annex E. The forecast shall be included in the Network Plan and updated in accordance with the procedure at Annex E.

9.4. The forecasts provided between MTO and the Licensee represent the good faith expectations of the Licensees of their capacity requirements on the interconnect link. In the event that actual capacity activation should be less than that forecast, no punitive penalty shall be incurred by either MTO or the Licensee. For the avoidance of doubt, MTO or the Licensee reserves the right to recover, from each other, its unavoidable costs incurred as a result of the shortfall in capacity ordered according to the forecasting procedures set out by MTO or the Licensee in Annex E. Should either of the Licensees requests the activation of a higher capacity beyond that forecasted, the other Licensee shall use reasonable endeavours to meet this requirement but shall be under no obligation to provide capacity requested beyond that forecasted in accordance with the procedures set out in Annex E.

10 NETWORK ALTERATION AND DATA MANAGEMENT AMENDMENT

10.1. At least 1 (one) calendar month' s notice shall be given by the Requesting Licensee for each Network Alteration request, except if the change concerned is due to unforeseen circumstances and it therefore does not allow MTO to respect the above mentioned period. Such alteration might be within either Licensee's network, such as:

- Changes to physical network such as updating the network;
- Closure or re-location of switching, transmission systems, signalling equipment etc.;
- Upgrade or modification of infrastructures (building shelters conduits etc.) electrical specification (climate control etc.);
- Changes to the numbering topology routing etc.

The Requested Licensee shall, if in a position to accept the network alteration proposed, provide an estimate of the costs involved within 1 (one) calendar month of receipt of a network alteration request.

10.2. Where the network alteration is agreed or where the alteration is part of a planned upgrade program, each Licensee shall pay its own costs for changing its system to continue to convey calls.

10.3. Network alterations shall be carried out within the timescales laid down in this clause. If a requested Licensee believes that it is not in a position to proceed with the requested network alteration, either within the timescales requested or in any circumstances, the requesting Licensee shall be advised within 2 (two) weeks of receipt of the request. In these circumstances MTO and the Licensee shall make all reasonable efforts to resolve the situation, including recourse to the dispute resolution process as per Clause 17.

10.4. MTO and the Licensee shall endeavor to minimize the number of data management amendments in each other's network by minimizing the level of digit analysis carried out in their respective networks to that required to ensure efficient call routing and provide agreed billing information.

10.5. In order to ensure the timely implementation of data management amendments, notice of data management amendments shall be provided by the Licensee requesting the amendment at least 2 (two) calendar months in advance of the requested implementation date.

10.6. Data management amendments shall be carried out within the time-scale laid down in this clause. If a requested Licensee believes that it is not in a position to proceed with the requested

data management amendment, either within the timescales requested or in any circumstances, the requesting Licensee shall be advised within 2 (two) Weeks of receipt of the request. In these circumstances MTO and the Licensee shall make all reasonable efforts to resolve the situation, including recourse to the dispute resolution process as per Clause 17 hereof.

10.7. In relation to all other data management amendment requests, where it is jointly agreed as being to the mutual and proportionate benefit to both MTO and the Licensee, or where there is a financial benefit accruing to the requested Licensee, it shall be carried out against a cost based charge.

10.8. MTO and the Licensees shall notify each other of any significant changes made in the network that may affect the services defined as per this offer. The changing Licensee should pay the costs of the other Licensee where its alterations cause the other Licensee to change its system to continue to provide impacted services. Exceptions to this would be in the case where the change has been agreed to or where the alteration is part of a planned upgrade program (such as deployment of new software new numbering codes network elements), or is made necessary to comply with in force regulation or technical standards as defined by the relevant bodies.

10.9. MTO and the Licensee shall pay for changes resulting as a consequence of either Party's request either for a new service or an existing service upgrade.

10.10. Data management amendments required to activate new geographic customer number ranges or standard mobile subscriber number ranges and any other allocated number ranges as defined in the National Numbering Plan and allocated or amended by the TRC shall be carried out against a cost based charge.

11 NETWORK SAFETY AND PROTECTION

11.1. Each Licensee is responsible for the safe operation of its network and shall take all reasonable and necessary steps in its operation and implementation of this Reference Offer to ensure that its network does not:

11.1.1 endanger the safety or health of employees, contractors, agents or customers of the other Licensee; or

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

11.2. Neither MTO nor the Licensee shall connect or knowingly permit the connection to its network of any equipment or apparatus, including, but not limited, to any terminal equipment that is not approved by the TRC or not allowed by Jordanian regulations.

12 NUMBERING AND CLI

12.1. Each Licensee shall use numbers in accordance with the National Numbering Plan.

12.2. Where CLI is passed for presentation purposes, the presentation shall comply with the prevailing regulations.

12.3. MTO and the Licensee's number ranges shall be detailed in the Network Plan.

12.4. MTO shall provide the Licensee with all information about number ranges used in its system. The Licensee shall provide information on all number ranges it wishes MTO to build in its system.

12.5. The parties acknowledge that they will have to meet any requirements with regard to numbering which may be imposed by law or regulation.

12.6. If a party's network requests CLI from the other network, the originating network shall generate and convey CLI to the network requesting it. The parties agree to exchange CLI generated within their systems and to pass an CLI received from a third party or an authorized international system. CLI will be passed for presentation purposes, the presentation shall comply with all the requirements of any relevant guidelines. All traffic on the interconnection links dedicated for national traffic must all carry the National caller ID (CLI) of the calling party. All traffic on the interconnection links dedicated for international traffic must all carry the National caller ID (CLI) of the calling party as far as available, but not less than 90%.

12.7. A party whose network receives CLI following a request pursuant to Clause 12.6 shall only use the CLI for the following purposes:

- routing telephone calls;
- compilation of inter-party invoices;
- compilation of end user bills (provided that CLI is disclosed and the end user bill);
- call trace, malicious call identification, compilation of statistics relating to call origin, and fraud prevention and detection; and
- display to end users, subject to the Operation and Maintenance Manual.

12.8. The cost of generating and conveying CLI is included in the relevant conveyance rates for telephone calls. Neither party shall apply additional charges for CLI.

12.9. If there is a change in applicable law or regulation materially affecting the operation of CLI, the parties shall change the operation of CLI to the extent necessary to comply with the applicable law or regulation.

12.10. A party conveying calls handed over from a third party system or an authorized international system shall convey, to the extent provided, the CLI associated with those Calls.

12.11. Notwithstanding other provisions of this Reference Offer a Party may use CLI to pass telephone numbers to emergency organizations.

13 NEW OR ADDITIONAL SERVICES OR WITHDRAWAL OF SERVICES

13.1 Either party may at any time request from the other party additional interconnect services and the parties agree to enter into discussions in good faith negotiations to enter into an agreement for the provision of such service on fair and reasonable terms.

13.2 The requesting party shall provide a written statement of its requirements according to the process for introduction of additional services described in the New Services Manual.

13.3 Where the request is for an additional interconnect service, for which standard terms and conditions are already available, then the agreement shall be amended by the addition of an applicable schedule containing the terms applicable for the requested interconnect service. The requested party shall conduct the necessary work in its system to provide the access to the additional service provided that all the necessary pre-requisites defined in the New Services Manual have been fulfilled, any amendments to the agreement must be approved by the TRC to be effective.

13.4 Where the request is for a new service for which there are no standard terms and conditions, or require different terms and conditions to those provided for an existing service, the requesting party shall provide a Statement of Requirements (SOR) giving all reasonable information needed to allow the requested party to be able to understand the requirements for the new service and to be able to offer a proposal to meet the requirement.

13.5 The requested party shall advise the requesting party within one (1) month of receiving the SOR if it has sufficient information to conduct a full analysis of the request. If further information is requested from the requesting party, such information shall be provided.

13.6 Subject to the provision of any further essential information, the requested party shall provide a written response to the SOR within two (2) months of receiving the SOR. If after a full analysis, the requested party does not believe it has an obligation to provide such a new service or has other valid grounds for refusing to supply the service including, but not limited to, technical infeasibility, the requested party shall advise the requesting party of its decision. In such a case if the requesting party does not accept such reasons for refusal the matter shall be treated as a dispute.

13.7 If the requested party does agree to develop a new service to meet the requirement of the requesting party then it shall prepare a plan and advise the requesting party of a reasonable time-scale for developing the new service. Such plan shall include a one (1) month notice prior to the launch of the service to the TRC or any in-service trial necessary to prove the correct operation of

the new service. If the new service is an interconnect service, the new service shall be included in the agreement.

13.8 If the Licensee wishes to cease an interconnect service which is part of the agreement, it shall notify MTO in writing of its intentions. MTO shall make the necessary changes to the agreement by removal of the applicable schedule or schedules. The applicable charges and payment for the ceased interconnect service shall be due up to the date of the term of the service, even if the cessation was before the elapse of the said term. Any impact on the technical aspects of the interconnection shall be agreed by the parties through the Joint Technical Committee.

13.9 If MTO wishes to withdraw an interconnect service provided under the agreement it shall only do so after approval has been given by the TRC. MTO shall notify the Licensee of its intention to withdraw the interconnect service at the same time as it advises the TRC, giving reasons for the withdrawal and planned timescales with a minimum of a three months prior notice..

14 QUALITY OF SERVICE

14.1. MTO shall provide interconnect services at the same quality of service level as for similar services provided to MTO retail operation.

14.2. For traffic conveyance services, MTO and the Licensee shall use their reasonable endeavors to meet the target grade of service as specified in the Service Level Offer (SLO). For specific routes, and in accordance with the in force regulations, the target grade of service for specific routes can be varied from the standard and agreed between MTO and the Licensee as set out in the Network Plan.

14.3. MTO and the Licensee shall use their reasonable endeavors to meet the Quality of Service (QoS) measures set out in the SLO for elements of the calls carried on their network.

14.4. A period of 2 (two) weeks of the specified Grade of Service being persistently breached on a particular interconnect link shall not automatically trigger an increase of capacity on the affected interconnect link but should trigger a review of the network routing and interconnection capacity by MTO and the Licensee within 1 (one) calendar month.

15 PROVISIONING, OPERATION AND MAINTENANCE

15.1. The procedures for the installation and testing of the initial interconnect as well as for the continued operation and maintenance thereof shall be governed by the provisions of the Operations and Maintenance Manual.

16 PROVISION OF INFORMATION

16.1. Subject to the obligations of MTO or the Licensee's confidentiality to a third party, either may request, and the other shall provide, information on protocols in use by that other Licensee which are required for interconnection, conveyance of calls or the provision of services specified in this Reference Offer if such other Licensee has relevant information and the provision of such information is necessary as a consequence of the absence or incompleteness of international standards.

16.2. Notwithstanding any provision of this Reference Offer MTO or the Licensee shall not be obliged to provide information which is subject to a confidentiality obligation to a third party unless such third party consents to such disclosure and MTO or the Licensee, as appropriate, have taken all reasonable steps to secure the consent of such third party.

16.3. The disclosing Licensee shall use reasonable endeavors to ensure that information disclosed is correct to the best of its knowledge at the time of provision of such information.

16.4. MTO and the Licensee shall disclose information in accordance with this Clause 16 on a non-discriminatory basis and each shall provide the same information to the other as it does to those licensees with whom it interconnects.

16.5. Subject to Clause 24 hereof, the receiving Licensee shall indemnify the disclosing Licensee and keep it indemnified against all liabilities, claims, demands, damages, costs and expenses arising as a consequence of any failure by the receiving Licensee to comply with any reasonable conditions imposed and expressly identified and notified to receiving Licensee, including those relating to confidentiality as per Clause 20, by the disclosing Licensee at the time when the information was provided.

16.6. Nothing in this Reference Offer shall require a Licensee to do anything in breach of any statutory or regulatory obligation of confidentiality, including without prejudice to the generality of the foregoing, any obligation pursuant to Jordanian legislation or regulation.

17 RESOLUTION OF DISPUTES

17.1. In the event of a dispute or difference arising between or amongst MTO and the Licensee relating to or arising out of an interconnection agreement, including the implementation, execution, interpretation, rectification, termination or cancellation of the agreement, MTO and the Licensee shall meet within 10 (ten) working days of written notice of the dispute or difference from one Licensee to the other (or such longer time as mutually agreed by the Licensees in writing) to negotiate in good faith in an effort to settle such dispute or difference, and if the dispute or difference is not resolved to the Licensees' satisfaction within 5 (five) working days of the meeting (or such longer time as mutually agreed by the Licensees in writing), the Licensees shall proceed as follows:

17.2. Within 2 (two) working days, the dispute or difference shall be referred to a joint committee of the Licensees' respective chief executive officers or alternates appointed by them. The chief executive officers or appointed alternates shall use their best endeavors to settle or resolve the dispute or difference as expeditiously as possible, but in any event within a period of 15 (fifteen) working days of the matter being referred to them (or such longer time as mutually agreed by the Licensees in writing);

17.3. Without prejudice to section 19.2., such dispute or difference shall be referred to the TRC for determination if either or both parties so request or in the alternative if both parties agree then the matter may proceed to arbitration. TRC dispute decisions shall be binding upon the MTO and the Licensee. Parties may resort to the Jordanian competent courts if either or both parties so request.

17.4. During any dispute or difference the parties shall keep their networks connected for the provision of services and conveyance of calls between their respective networks. No party shall disconnect the other party's network without the prior approval of the TRC. The TRC shall give due consideration to the matter and may seek representations from the other party prior to making any determination regarding the disconnection of the said networks.

18 ARBITRATION

18.1. Notwithstanding the provisions of Clause 17 above, the Licensees shall forthwith meet to attempt to settle such dispute or difference and failing such settlement within a period of 10 (ten) working days, the said dispute or difference may be submitted to arbitration – if agreed between parties as the method to settle disputes - by an arbitrator or arbitrators appointed as follows:

18.2. If the matter in dispute is principally:

- a legal matter, an impartial practicing lawyer(s) of not less than 10 (ten) years standing;
- an accounting matter, an impartial practicing chartered accountant(s) of not less than 10 (ten) years standing;
- a technical matter, an impartial telecommunications expert of not less than 10 (ten) years standing;
- any other matter, an independent person(s) agreed upon between the parties;
- if the parties fail to agree on an arbitrator within 10 (ten) working days after the arbitration has been demanded, the arbitrator shall be nominated at the request of either of the parties by the TRC.

18.3. Any Licensee may request that a dispute or difference in terms of Clause 17 be referred to arbitration by giving written notice to that effect to the other Licensee.

18.4. The arbitration shall be held immediately and with a view to its being completed within 15 (fifteen) working days after it is demanded.

18.5. The arbitrator shall make an award in respect of the costs of the arbitration having regard to the substantial success of each party in the outcome of the proceedings.

18.6. The decision of the arbitrator shall be binding on the parties to the arbitration after the expiry of a period of 30 (thirty) working days from the date of the arbitrators ruling and provided that no appeal has been lodged by any party to a competent court as provided for under the Jordanian Arbitration Law.

19 BREACH, SUSPENSION AND TERMINATION

19.1. If one Licensee's network seriously and adversely affects the normal operation of the other Licensee's network, or is a threat to any person's safety, the affected Licensee shall immediately inform the affecting Licensee and the TRC about the incident. The affecting Licensee shall take immediate action to resolve the problem and in the event that normal operation is not restored in 4 (four) hours, or if the matter is extreme in terms of its impact on the Licensee's customers or the safety of personnel, the affected Licensee may suspend, to the extent necessary, such of its obligations under this Reference Offer, and for such period as it may consider reasonable to ensure the normal operation of the affected Licensee's network or to reduce the threat to safety. Such suspension shall be notified in writing to the TRC's offices and by telephone to the TRC nominated contact point and may continue beyond 12 (twelve) hours unless the TRC instructs otherwise.

19.2. If either Licensee is in material breach of any Interconnection Agreement consequent upon this Reference Offer (including failure to pay any due amounts hereunder or a failure to maintain the bank guarantee in accordance with Clause 8.1), the other Licensee may serve a written notice (the "breach notice") on the Licensee in breach specifying the breach and the time limit for such breach to be remedied. If the Licensee in breach fails to remedy the breach within 5 (five) working days, or such longer period as specified in the breach notice, the Licensee not in breach has the right to, until such breach is remedied, suspend performance of such of its obligations made under the said Interconnection Agreement as is reasonable in the circumstances.

19.3. If the Licensee in breach fails to remedy the breach within the period stated in the breach notice, the Licensee not in breach has the right to terminate the Interconnection Agreement with the Licensee in breach on 3 (three) Calendar Month' written notice provided always that if the Licensee in breach remedies the breach within such 3 (three) Month' notice period, the Interconnection Agreement shall not be terminated as a result of such notice. Such termination shall be notified in writing to the TRC at least 14 (fourteen) calendar days prior to the end of the foregoing notice period and may be implemented unless the TRC instructs otherwise.

19.4. The Interconnection Agreement may be terminated by either Licensee by written notice forthwith (or on the termination of such other period as such notice may specify) if any one of the following occurs:

19.4.1 The other Licensee ceases to be a licensed operator.

19.4.2 The other Licensee is unable to pay its debts, becomes insolvent, or has ceased or threatens to cease business, or a petition for winding up or bankruptcy has been filed, a resolution for voluntary winding up has been passed or judicial manager has been appointed over the whole or substantial part of its assets or property, or any action is taken by any creditor of the other Licensee to recover, realize or enforce any security over any assets of the other Licensee or to enforce any judgment against the other Licensee; or

19.4.3 The licensee stopped making regular payment in the due dates for invoices raised by MTO without a valid reason or dispute for three times during his lifetime.

19.5. In the event that the Interconnection Agreement is terminated:

19.5.1 All sums due or accrued or payable to each Licensee under the Interconnection Agreement up to the effective date of termination and all sums due or payable to each Licensee shall upon termination become immediately due and payable to that Licensee; and

19.5.2 Each Licensee shall within a reasonable time, but not more than one month later, return to the other Licensee at its own expense all equipment, facilities, plant and other property of the other Licensee used under the Interconnection Agreement in good working condition, fair wear and tear only excepted; and

19.5.3 Each Licensee shall within a reasonable time, but not more than one month later, remove all of that Licensee's equipment, facilities, plant and other property located on the other Licensee's premises used under the Interconnection Agreement; and

19.5.4 Any bank guarantee that has been established pursuant to the Interconnection Agreement shall be cancelled by the Licensee in whose favor such bank guarantee is made, subject to the fulfillment of the obligations set out in this Clause 19.6.

19.6. If one month after the expiry of the Interconnection Agreement, a Licensee fails to recover equipment in good condition (fair wear and tear excepted) because of the acts or omissions of the other Licensee (or a third party appearing to have control of a site where such equipment is situated) the first Licensee may demand reasonable compensation from the other Licensee which shall be paid by the other Licensee within 10 (ten) calendar days of the date of the demand.

19.7. A Licensee shall be entitled to charge the other Licensee all reasonable costs incurred in repossessing or acquiring a replacement of any equipment, facilities, plant and other property which the other Licensee has failed to return under clause 19.5.2 within one month of the date of termination and/or of acquiring a replacement of any equipment which is returned in a damaged or defective condition.

19.8. A Licensee may remove the other Licensee's equipment, facilities, plant and other property located on its premises if not removed by the other party within one month after the date of termination.

19.9. On termination of the Interconnection Agreement, each party must, at its own expense, deliver to the other party or, if not possible, destroy or erase all documents or other forms of storage which comprise or contain the other party's confidential information or from which the other party's confidential information can be reproduced.

19.10. Termination of the Interconnection Agreement shall not be deemed a waiver of a breach of any term or condition of the Interconnection Agreement and shall be without prejudice to a Licensee's rights, liabilities or obligations that have accrued prior to such termination.

19.11. Notwithstanding the termination of the Interconnection Agreement certain sections as shall be specified in the Interconnection Agreement shall continue in full force and effect.

19.12. MTO's and the Licensee's right to terminate or suspend performance of the Interconnection Agreement in accordance with this clause 19 is without prejudice to any other rights or remedies available to both MTO and the Licensee.

20 CONFIDENTIALITY

20.1. MTO and the Licensee shall conclude a confidentiality agreement as part of the Interconnection Agreement. This will follow normal practice and provide for the non-disclosure of confidential information to third parties except to the TRC and as provided for under Jordanian Law.

20.2. Information provided by one Licensee to the other for the purposes of interconnection shall only be used by that Licensee for the purposes of interconnect and shall not be made generally available within the other Licensee's company.

21 INTELLECTUAL PROPERTY RIGHTS

21.1. Except as otherwise expressly provided in this Reference Offer or the Interconnection Agreement, all trademarks, inventions, patents, copyrights, designs, design rights, trading names (whether registered or not) and all other intellectual property rights (intellectual property) shall remain in the ownership of the person creating or owning the same and nothing in this Reference Offer or the Interconnection Agreement shall confer or be deemed to confer on either Licensee any rights or licenses in the intellectual property of the other Licensee or of any third party.

21.2. Without prejudice to Clause 21.1, neither Licensee shall be entitled to use any trademarks nor service marks (whether registered or not) of the other Licensee in any document nor other medium, without the prior written consent of the other Licensee.

22 REVIEW

22.1. The Reference Offer and any Interconnection Agreement consequent upon it shall be reviewed and updated periodically following agreement with the TRC. MTO and/or the Licensee may seek to amend the Interconnection Agreement by serving on the other a review notices if:

22.1.1 Either Licensee's license is materially modified (whether by amendment or replacement); or

22.1.2 Any obligations contained within TRC regulations are materially altered; or

22.1.3 A material change occurs in the law or regulations governing telecommunications in Jordan in relation to this reference offer; or

22.1.4 The Interconnection Agreement makes express provision for a review or the Licensees agree in writing that there shall be a review; or

22.1.5 A material change occurs, including enforcement action by any regulatory authority, which affects or reasonably could be expected to affect the commercial or technical basis of this Reference Offer or any Interconnection Agreement made pursuant to it.

22.2. A review notice shall set out in reasonable detail the issues to be discussed between MTO and the Licensee.

22.3. A Licensee may initiate a general review of the Interconnection Agreement by serving a review notice during the period of 6 (six) Months commencing from the effectiveness date of the Reference Offer and upon TRC's approval of such a revision.

22.4. The charges for interconnect services set out in the Price List shall, where applicable, in any case be reviewed on annual basis; any changes shall be approved by the TRC.

22.5. A review shall take place immediately following the TRC mandated changes to this Reference Offer in order to incorporate these mandated changes into this Reference Offer and the Interconnection Agreement. Any such changes shall be effective .based on the time-frames as set out in the revised Reference Offer.

22.6. Upon service of a review notice, MTO and the Licensee shall forthwith negotiate in good faith the matters to be resolved with a view to agreeing the relevant amendments to the Interconnection Agreement.

22.7. For the avoidance of doubt, MTO and the Licensee agree that notwithstanding service of a review notice, the Interconnection Agreement shall remain in full force and effect.

22.8. If MTO and the Licensee fail to reach agreement on the subject matter of a review notice the provisions of Clause 17 hereof shall apply.

22.9. MTO and the Licensee shall enter into an agreement to modify or replace the Interconnection Agreement in accordance with what is agreed between the Licensees and subject to the TRC's approval.

23 FORCE MAJEURE

23.1. Neither MTO nor the Licensee shall be liable for any breach of the Interconnection Agreement caused by act of god, insurrection or civil disorder, war or military operations, national or local emergency, acts or omissions of government, or other competent authority, any work carried out on highways or roads by the competent authority, compliance with law, regulations or demands of any government or governmental agency, fire, lightning, explosion, flood, earthquake, subsidence, weather of exceptional severity, acts or omissions of persons for whom neither Licensee is responsible or any other cause outside its reasonable control and any such event or circumstance is considered as force majeure.

23.2. A Licensee whose obligations under the Interconnection Agreement are affected by force majeure shall promptly notify the other of the estimated extent and duration of the effects of force majeure ("Force Majeure Notification").

23.3. Upon cessation of the effects of force majeure, the Licensee affected in its ability to perform its obligations under the Interconnection Agreement shall promptly notify the other Licensee.

23.4. If as a result of force majeure, the Licensee is prevented to perform its obligations under the Interconnection Agreement, that Licensee shall, subject to the provisions of Clause 23.6, perform those of its remaining obligations not affected by force majeure. In performing those of its obligations not affected by force majeure, the Licensee initially affected by force majeure shall deploy its resources such that (when taken together with other obligations to its customers and third parties) there is no undue discrimination against the other Licensee.

23.5. To the extent that a Licensee is prevented as result of a force majeure from providing all of the services or facilities to be provided under this Reference Offer, the other Licensee shall be released to the equivalent extent from its obligations to make payment for such services or facilities or complying with its obligations in relation thereto.

23.6. Following a Force Majeure Notification and if the effects of such force majeure continue for:

23.6.1 A continuous period of not more than 6 (six) months from the date of the Force Majeure Notification (whether or not notice of cessation has been given pursuant to

clause 23.3) any obligation outstanding shall be fulfilled by the Licensee initially affected by force majeure as soon as reasonably possible after the effects of force majeure have ended, save to the extent that such fulfillment is no longer possible or is not required by the other Licensee;

23.6.2 A continuous period of 6 (six) months or more from the date of the Force Majeure Notification (and notice of cessation has not been given pursuant to clause 23.3), the Licensee receiving the Force Majeure Notification shall be entitled (but not obliged) to terminate the Interconnection Agreement by giving not less than 30 (thirty) working days written notice to the other Licensee, provided that such notice shall be deemed not to have been given if notice of cessation is received by the Licensee receiving the Force Majeure Notification prior to the expiry of the 30 (thirty) working days' notice. If the Interconnection Agreement is not terminated in accordance with the provisions of this Clause 23.6.2, any obligations outstanding shall be fulfilled by the Licensee initially affected by force majeure as soon as reasonably possible after the effects of the force majeure have ended, save to the extent that such fulfillment is no longer possible or is not required by the other Licensee.

24 LIMITATION OF LIABILITY

24.1. This Clause 24 shall regulate the liability of one Licensee to the other under this Reference Offer.

24.2. In performing their obligations under the Interconnection Agreement, the Licensees shall exercise the reasonable skills and care of a competent telecommunications operator/provider of the service and to comply with its obligations under the Interconnection Agreement.

24.3. Subject to Clauses 24.5 and 24.6, neither Licensee shall be liable to the other Licensee (whether in contract under statute or otherwise for any cause other than for willful or deliberate breach, negligence, acts or omissions) for:

24.3.1 Any loss (whether direct or indirect) of profits, revenue, business, anticipated savings, wasted expenditure, or goodwill; or

24.3.2 Any other consequential or indirect liability, loss or damage, suffered by the other Licensee and arising from or in connection with the Interconnection Agreement.

24.4. Subject to Clauses 24.2 and 24.3, if a Licensee ("breaching Licensee") is in breach of any of its obligations under the Interconnection Agreement (excluding obligations arising under the Interconnection Agreement to pay monies in the ordinary course of business), or otherwise (including liability for negligence or breach of statutory duty), the breaching Licensee's liability to the other Licensee shall be limited to JD 100,000 (One-hundred-thousand Jordanian Dinars) for any one event.

24.5. Neither Licensee limits its liability for death or personal injury caused by its own negligence.

24.6. Both Licensees shall include in their respective service contract with (customers or beneficiaries) an exclusion and/or a mitigation of liability clause in relation to interconnection services, as admissible by the law. In case an action, claim or demand was brought up against one of the Licensees for failure to include such a clause, such action, claim or demand shall not extend to the other Licensee, and the defaulting Licensee shall hold the non-defaulting Licensee harmless of such action, claim or demand.

24.7. Each provision of this Clause 24 is a separate limitation applying and surviving even if one or more such provisions is inapplicable or held unreasonable in any circumstances.

24.8. For the avoidance of doubt, neither Licensee shall be liable for any breach of the Inter-connection Agreement caused by the delay or failure of any supplier to deliver equipment to either Licensee at the prescribed time.

25 ASSIGNMENT OF RIGHTS AND OBLIGATIONS

25.1. Without prejudice to the License Agreement no rights, benefits or obligations made under an Interconnection Agreement may be assigned or transferred, in whole or in part, by a Licensee without the prior written consent of the other Licensee, such consent not to be unreasonably withheld.

25.2. The assigning Licensee shall give notice to the other licensee of any assignment permitted to be made with the other licensee's consent as soon as practicable. No assignment shall be effective without the prior written consent of the TRC.

26 NOTICES

26.1. A notice shall be duly served if:

26.1.1 Delivered by hand, and exchanged for a signed receipt, at the time of actual delivery, or the following day if after 16:00.

26.1.2 Sent by facsimile, upon its receipt being confirmed.

26.1.3 Sent by recorded delivery post, 6 (six) calendar days after the day of posting.

26.2. Except if otherwise specifically provided all notices and other communications relating to an acceptance of this Offer shall be in writing and shall be sent as follows:

If to the Licensee: Commercial Manager The Licensee.	Telephone Facsimile Email	[[[]]]
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Commercial Carrier Relations Manager, Telephone	[[[]]]
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or to such other addresses as the Licensees may notify from time to time pursuant to this Clause 26.

Both Licensees dispense with the requirement for notarial notices under the Laws of Jordan.

27 WAIVER

The waiver of any breach of or failure to enforce, any term or condition resulting from an acceptance of this Reference Offer shall not be construed as a waiver of any other term or condition of this Reference Offer. No waiver shall be valid unless it is in writing and signed on behalf of the Licensee making the waiver.

28 SEVERABILITY

The invalidity, unenforceability of any provision in the Interconnection Agreement shall not affect the validity or enforceability of the remaining provisions.

29 AMENDMENTS

Amendments and supplements to those elements of the Reference Offer required by the TRC regulations and decisions, including its Annexes, Appendices and Service Schedules, shall be issued by the MTO with not less than 28 (twenty-eight) days notices subject to the approval of the TRC.

30 GOVERNING LAW

The interpretation, validity and performance of any Interconnection Agreement pursuant to this Reference Offer shall be governed in all respects by the laws of Jordan, including the Telecommunications Law.

The courts authorized and specialized to solve disputes resulting from the execution of such agreements are Hashemite Kingdom of Jordan.

31 DURATION

This Reference Offer shall take effect as from [TRC's approval date] and shall continue in effect until superseded by a revised Reference Offer approved by the TRC.

MTO National Traffic Termination Service

Service Schedule 1

MTO Reference Offer

SERVICE SCHEDULE 1: MTO NATIONAL TRAFFIC TERMINATION SERVICE

1 SERVICE AND DEFINITIONS

1.1 The Service

The MTO National Traffic Termination Service is a service for the carriage of a telephone call from an agreed Point of Interconnection to a Called Mobile Party on MTO's Network.

Available to: All national Licensees having one or more interconnect links with MTO.

Traffic: Traffic which both originates in Jordan and terminates in MTO only.

1.2 Definitions

Capitalized terms not defined in this Service Schedule are defined in Annex A- Definitions. Terms defined in this Service Schedule are specific to it.

- MTO is the licensed operator of the mobile network directly connecting the Called Mobile Party.
- Licensee is the licensed operator of the fixed or mobile network directly connecting its TRC-allocated numbers from which a Telephone Call to a Called Mobile Party originates.
- Called Mobile Party is the MTO Customer to whose Mobile Number the Calling Party places the Telephone Call.
- Calling Party for the purposes of this Service Schedule, the Licensee Customer who initiates a Telephone Call the completion of which requires utilization of the Mobile Traffic Termination Service.
- Answer Message the message sent in a backward direction when a Called Party answers and when the destination exchange connects through the transmission path.
- Chargeable Call a Successful Call which was answered by the Called Party or the call forwarded-to party (including a voicemail system or other automated answer system) and generated Conversation Time that starts with Answer Message and ends with a Release Message.

- Conversation Time based on SS7, is the interval that elapses between the moment when the Answer Message is detected or received and the Release Message is detected or received.
- Initial Answer Message (IAM) means the first message of the call set-up procedure which contains all the information to route the Call to the destination exchange and connect the Cell to the Called Party.
- Release Message means the message that initiates the release of the circuit switched connection or equivalent message in any other protocol.
- Service or 'the Service' means the MTO National Traffic Termination Service described in this Service Schedule.
- Successful Call means a Telephone Call which is successfully answered, the called number is busy or the call is delivered to the called number but does not get answered (ring tone no reply)

The Called Party answers the Call and an IAM is received by the Calling Party (whether or not combined with a call-forwarding service to another telephone number or a voicemail or any other automated answer system);

2 TERMS

2.1 Pre-requisites

MTO shall be obliged to supply the Service under the following conditions:

- Customer Sited Interconnect Link Service is established; OR Collocation realized OR Infrastructure sharing agreed subject to clause 3.6. of the main contract
- the parties have established a Point of Interconnection at which the parties agree that the Licensee will handover Telephone Calls to MTO network for termination to the Called Mobile Party;
- the parties have successfully completed any pre-commissioning testing requirements set out in the Operation and Maintenance Manual.

2.2 Handover

The Licensee will handover Telephone Calls for termination on MTO's Network:

- at the Point of Interconnection agreed in writing by MTO and the Licensee; and
- in accordance with all applicable terms of this Service Schedule, the Interconnection Agreement and relevant specifications notified by MTO to the Licensee from time to time.
- The Interconnection Links between MTO and the Licensee dedicated for this service shall be used solely for traffic originated from Jordan and terminated in MTO network; It shall not be used for other sources of traffic like International Inbound traffic.

2.3 Conveyance

Subject to the Forecasting Procedures as specified in Annex E, MTO shall convey Telephone Calls that are handed over by the Licensee to MTO in accordance with paragraph 2.1 of this Service Schedule from the relevant Point of Interconnection to the Called Mobile Party by means of MTO's Network.

2.4 Provision of tones and network announcements

(a) in a manner and timetable agreed between the parties, each Party as MTO will support signaling (the delivery of which is free of charge) to terminate the relevant call at the signaling level. The content of the release signal should wherever possible indicate the accurate reason for the termination.

(b) If, notwithstanding the availability of signaling to terminate the relevant call, the Licensee may still request MTO to divert the call to tones or announcements and MTO may agree if it chooses and is able to do so;

(c) MTO:

- may charge the Licensee for the delivery to tones and announcements under paragraph (b);
- may charge the Licensee for the delivery to tones and announcements if the signaling is not supported by a third party network; and
- may not charge the Licensee for the delivery to tones and announcements if the signaling is available to MTO, but MTO does not terminate the call through signaling (other than at the request of the Licensee under paragraph (b)).

2.5 Signalling Interconnection

The transfer of signals to support the establishment, maintenance and clear down of the Telephone Calls will be via the signaling interconnection specified in Annex D- Technical Information.

2.6 Associated Information Signals

(a) The Telephone Calls will be handed over to MTO at the relevant Point of Interconnection with information signals provided in the associated signaling system.

(b) The format of information in the signals referred to in paragraph (a) will be in accordance with ISUP specification set out in Annex D- Technical Information.

2.7 Provision of CLI

The SS7 signaling provided by the Licensee must include the provision of CLI information in a format which allows MTO to unambiguously derive the full Mobile Number or Fixed Number of the Calling Party. All traffic on the interconnection links dedicated for national traffic must all carry the correct National Caller ID (CLI) of the calling party.

2.8 Nature of Switch Ports

- Telephone Calls will be delivered to MTO at 2.048 Mbit/s Switch Ports via a Point of Interconnection.
- The Switch Ports will operate at 2.048 Mbit/s in accordance with Annex D- Technical Information.

2.9 Calling Number Display

The parties will comply with the provisions relating to calling number display where set out in the Operation and Maintenance Manual.

2.10 Customer Billing

The Licensee is responsible for billing the Calling Party for the end-to-end Telephone Call provided by the Licensee utilizing the Mobile Traffic Termination Service.

3 Charges

The Licensee shall pay to MTO the relevant Charges for each Chargeable Call which uses the Mobile Traffic Termination Service, determined in accordance with this Service Schedule or the Price List of the Main Offer as approved and amended from time to time by TRC.

3.1 Charge List

Item ID	Item Description	Effective Date	Charge (..1DiMin)	Charge Basis
	Conveyance of Calls as set out in Service Schedule <hr/> Mobile National Traffic Termination Ser- vice			Per minute, cal- culated per second

INTERNATIONAL INBOUND CALLS TO MTO NETWORK

Service Schedule 2

MTO Reference Offer, 2013

SERVICE SCHEDULE 2: INTERNATIONAL INBOUND CALLS TO MTO NETWORK

1 SERVICE AND DEFINITIONS

1.1 The Service

The International Inbound Calls to MTO Network is a service for the access to MTO network for the delivery of International Inbound Telephone Calls from a Calling International Party to a Called Local Mobile Party as further described in this Service Schedule.

Available to: All National Licensees having one or more interconnection links with MTO.

Traffic: Voice traffic which originates outside Jordan and terminates on an MTO telephone number range.

1.2 Definitions

Capitalized terms not defined in this Service Schedule are defined in Annex A- Definitions. Terms defined in this Service Schedule are specific to it.

- MTO is the licensed Operator of the Mobile Network directly connecting the Mobile Number of a Called Local Mobile Party to which the international Inbound Telephone Call is made.
- Licensee is the licensed Operator of the Fixed or Mobile Network directly connecting the PSTN number or mobile number from which a Telephone Call to a Called Mobile Party originates.
- Billing and Collection Services means the functions undertaken by the Licensee for the purposes of attempting to collect payments for the termination of Inbound International Telephone Calls.
- Called Local Mobile Party means the End User directly connected to the Mobile Network of MTO to whose Mobile Number an Inbound International Telephone Call is made.
- Calling International Party means the person located outside Jordan who initiates an Inbound International Telephone Call to a Called Local Mobile Party.

- Inbound International Telephone Call means a Telephone Call made by the Calling International Party to a Called Local Mobile Party, however routed.
- Network Access Service means the service comprising the delivery by MTO of calls from a Point of Interconnection to a Called Local Mobile Party.
- Chargeable Call means a Successful Call which was answered by the Called Party or the call forwarded-to party (including a voicemail system or other automated answer system) and generated Conversation Time that starts with Answer Message and ends with a Release Message.
- Conversation Time means, based on SS7, the interval that elapses between the moment when the Answer Message is detected or received and the Release Message is detected or received.
- Initial Answer Message (IAM) means the first message of the call set-up procedure which contains all the information to route the Call to the destination exchange and connect the Call to the Called Party.
- Release Message means the message that initiates the release of the circuit switched connection or equivalent message in any other protocol.
- Successful Call means a Telephone Call which is successfully answered, the called number is busy or the call is delivered to the called number but does not get answered (ring tone no reply)

The Called Party answers the Call and an IAM is received by the Calling Party (whether or not combined with a call-forwarding service to another telephone number or a voicemail or any other automated answer system).

2 TERMS

2.1 Pre-requisites

MTO shall be obliged to supply the Service under the following conditions:

- Customer Sited Interconnect Link Service is established; OR Collocation realized OR Infrastructure sharing agreed subject to clause 3.6. of the main contract
- the parties have established a Point of Interconnection at which the parties agree that the Licensee will handover Telephone Calls to MTO network for termination to the Called Mobile Party;
- the parties have successfully completed any pre-commissioning testing requirements set out in the Operation and Maintenance Manual.

2.2 Service Provision

MTO shall convey Inbound International Telephone Calls that are handed over by the Licensee from the agreed Point of Interconnection to the Called Local Mobile Party by means of MTO Network.

2.3 Handover

The Licensee will handover Inbound International Telephone Calls for termination in the MTO's network:

- at the Point of Interconnection agreed in writing by MTO and the Licensee; and
- in accordance with all applicable terms of this Service Schedule, the Interconnection Agreement and relevant specifications notified by MTO to the Licensee from time to time.
- The Interconnection Links between MTO and the Licensee dedicated for this service shall be used solely for traffic originated outside Jordan and terminated in MTO net-

work; these links shall not be used for other sources of traffic like National originated traffic.

2.4 Conveyance

Subject to the Licensee's compliance with its forecasting obligations, MTO shall convey Inbound International Telephone Calls from the relevant Point of Interconnection to the Called Local Mobile Party in accordance with the terms of this Service Schedule, the Interconnection Agreement and relevant technical and operational requirements agreed on with the Licensee from time to time.

2.5 Refiling, Transit and Number Translation

The Licensee must not take advantage of the arrangements for refiling or transit of traffic to or for termination of Telephone Calls to any local called number other than a Mobile Number of an End User directly connected to MTO Network. The Licensee must not use the Service in this Service Schedule in connection with any number translation, number forwarding or other abuse of incoming call termination. In all cases, the licensee must also abide by the national numbering ranges allocated to the MTO.

2.6 Signaling interconnection

The transfer of signals to support the establishment, maintenance and clear down of the Telephone Calls will be via the signaling interconnection specified in Annex D- Technical Information.

2.7 Associated Information Signals

(a) The Inbound International Calls will be handed over to MTO at the relevant Point of Interconnection with information signals provided in the associated signaling system.

(b) The format of information in the signals referred to in paragraph (a) will be in accordance with ISUP specification set out in Annex D- Technical Information.

2.8 Provision of CLI

The SS7 signaling provided by the Licensee must include the provision of CLI information in a format which allows MTO to unambiguously derive the full Mobile Number or Fixed Number of the Calling Party. This requirement exists due to the fact that MTO has the right to have CLI in order to protect its network from fraud activities.

All traffic on the interconnection links dedicated for international traffic must all carry the correct National Caller ID (CLI) of the calling party.

2.9 Nature of Switch Ports

(a) Inbound International Calls will be delivered to MTO at 2.048 Mbit/s Switch Ports via a Point of Interconnection.

(b) The Switch Ports will operate at 2.048 Mbit/s in accordance with Annex D- Technical Information.

2.10 Calling Number Display

The parties will comply with the provisions relating to calling number display where set out in the Operation and Maintenance Manual.

2.11 Customer Billing

The Licensee shall be exclusively responsible for Billing and Collection Services with its international correspondents for the end-to-end Inbound International Call.

3 Charges

The Licensee shall pay to MTO the relevant Charges for each Chargeable Call which uses the Service described in this Service Schedule, determined in accordance with this Service Schedule or the Price List of the Main Offer as approved and amended from time to time by TRC.

3.1 Charge List

Item 1D	Item Desc-	Effective Date	Charge (JD/Min)	Charge Basis
	Conveyance of International Inbound Calls as set out in this Service Schedule — international Inbound Calls to MTO Network			Per minute, calculated per second


ANNEX A - DEFINITIONS

In this Reference Offer, the following words and expressions shall have the meaning assigned to them in the list below:

Term	Definition
Access Codes	Short codes which allow end-users to access specific services as defined in the National Numbering Plan
Agreement	Means the Interconnection Agreement signed by the Parties
Advanced Call Services	Value-added services associated with traffic conveyance services, examples of which are set out in the relevant TRC Regulations
Alternative Service Provider	The telecommunication service provider which offers an alternative service to MTO
Annex	Annex A, B, C, D or E attached to this Offer
Answer Signal	A signal required by the originating network to confirm that an end to end transmission path has been successfully established with the number called by the originating caller
Appendix	An Appendix to an Annex of this Offer
ASR	The Answer Seize Ratio expressed as a percentage of the Successful Call Attempts compared to the total Call attempts (including Unsuccessful Call Attempts); for more clarity Successful Call Attempts shall include answered Calls, busy Calls and no answer Calls
Billing and Collection Service	The provision of Billing Services of a Licensee to another Licensee for Telecommunications services which are jointly provided

Term	Definition
Billing Dispute	A dispute when Information has not been achieved by the Parties pursuant to Annex (B)
Billing Information	That information which must be provided by the Billing Licensee, in accordance with the TRC Regulations, in support of invoices issued under an acceptance of this Offer, as agreed by MTO and the Licensee to enable the billed Licensee to validate an invoice
Billing Licensee	The Licensee requiring payment from the other Licensee for the provision of interconnect services to that Licensee
Billing Period	The period of a calendar month beginning at 00:00 hours on the first day of a month
Calendar	The Gregorian calendar
Call	A transmission path established through the Parties' Systems by which messages can be passed from an originator and delivered through conveyance to a called number so that content within the voice band can be exchanged between the originator and the called number (the called number may be a terminal or a network platform provided that an Answer Signal is provided)
Call Attempt	An attempt to set up a Call
Call Detail Records or CDR	A record of all details of a Call which is used for billing or statistical purposes
Capacity Port	A connection at a Switch port which provides the access (through a G703 Interface) on a multiplexor into an Interconnect Node in units of 2Mbit/s
Capacity Forecast	A profile of future Capacity ordering intentions over a 24 month period divided into Quarters beginning of the first day of a Quarter

Term	Definition
Capacity Rearrangement or Re-routing	When Capacity at one Interconnect Node is moved from that node to another Interconnect Node
Carrier Access Code (CAC)	Carrier Access Code - A four digit code issued by the TRC in accordance with the National Numbering Plan and allocated in the National Numbering Record
CCITT	Abbreviation for International Telegraph and Telephone Consultative Committee; a predecessor organization of the ITU-T
Changing Party	The Party making changes to the data build in their network at the request of the other Party
Chargable Call Duration	The duration of a Call for which charging shall apply starting with the receipt of an Answer Signal and ceasing with the receipt of Release Signal at the point of recording by the Party recording the relevant Billing Information
CLI	Calling Line Identification as defined by the ITU-T
Commercial Account Manager	A person in MTO who has the prime responsibility for the overall management of relationship with the Operator from a wholesale perspective
Confidential Information	All data, trade secrets, ideas, concepts, know-how, knowledge and information whether in writing or otherwise, relating to a party's people, services, network affairs, business, subscribers and end users exchanged between the parties before, on or after the effective date

Term	Definition
Connection	Connection means the physical linking of Telecommunications Terminal Equipment and/or Private Telecommunications Networks to Public Telecommunications Networks in order to allow Users of the Private Telecommunications Network or the Users of the Telecommunications Terminal Equipment to communicate with Users of a Public Telecommunications Network or Users of the same or another Private Telecommunications Network or to access services provided on a Public Telecommunications Network as appropriate
Contact List	A document containing details of individuals, addresses and telephone number and such other information required for ordering or maintenance of the services provided pursuant to the Interconnection Agreement
Conversation Time	Conversation time means, based on SS7, is the interval that elapses between the moment when the Answer Message is detected or received and the Release Message is detected or received
Customers	 <p>Means any Person who has indicated willingness to either Party to receive telecommunications services from the parties on the Parties terms and conditions, or has entered into a contract with the Parties for the provision of such services.</p>
Customer Number Range	Any number range, either geographic or non-geographic, from which individual numbers or groups of numbers are assigned to MTO's end user customers
Customer Sited Interconnect	A Transmission Interconnect Link where the Point of Interconnection is located at the other party's premises
Data Management Amendment	Such data reconfiguration of MTO Network or the Licensee's Network as is necessary for the access, routing and charging of Calls

Term	Definition
Date of Hand Over	The date of successful completion of the service test and the delivery of service to the Licensee
Day	The 24-hour period during which the Earth completes one rotation on its axis
Decision or TRC Decision	TRC decision on mobile markets review dated 21 December 2010 which requires that MTO shall issue this RO
Default Interest Rate	The maximum rate permitted by the Jordanian Laws
Designated Licensee	A Licensee which the TRC has determined to have significant market power in a relevant market and therefore has been required to produce a RO
Determination	A decision made by the TRC
Digital Distribution Frame (DDF)	A device on which a jumper cable is connected to establish a connection between two separate Networks
Disclosing Licensee	A Licensee disclosing to the Receiving Licensee information under the Interconnect Agreement
Disclosing Party	A Party disclosing information to the other Party
Dispute	A disagreement between the Parties as stipulated in paragraph 17.1 of the Main Body, excluding breaches of this Offer
Due Date	A date being 30 calendar days after the date of an invoice, or if such 30th day falls on a holiday, the date of the following Working Day
Effective Date	The date on which an Interconnection Service or charge in the MTO Interconnection Services Price List ,or the operator price list when applicable, takes effect subject to determination by TRC
E1 interface	2 Mb interface specified in ITU-T recommendations G703

Term	Definition
E3 interface	34 Mb interface specified in ITU-T recommendations 1 G703
Each Licensee	MTO and the other Licensee
Emergency Organisation	The relevant local public police, fire and ambulant services and other similar organizations providing assistance to the public in emergencies
End User	A Customer who uses either a mobile handset or a fixed line
ETSI	European Telecommunication Standardisation Institute
Exchange	A Switch in either the MTO network or Licensee's Network where Calls can be switched and routed to other exchanges
Exchange Ports	A 2 Mb/s port used to complete the logical connection between the cable medium used to provide interconnection links and MTO exchange equipment
Fully Provisioned Route	A Traffic Route which is dimensioned in accordance with Erlang B calculations for blocking probability
Gateway or Gateway Exchange	A Switch which provides a gateway for all Calls inbound to MTO for Interconnection
Grade of Service	The collective term for a series of metrics that measure for example transmission loss and Answer seizer ratios. These measures are intended to define the overall grade of service levels intended an a given service
GSM	Global System for Mobile Communications
High Usage Route	A Traffic Route where the provision of Capacity is such that a pre-defined level of congestion occurs and Calls will need to be routed on an associated overflow Route to avoid congestion

Term	Definition
Intellectual Property	Any patent, copyright, design, trade name, trademark, service mark or other intellectual property right (whether registered or not) including without limitation ideas, concepts, know-how, techniques, designs, specifications, drawings, blueprints, tracings, diagrams, models and other information relating to any such intellectual property
Interconnect Billing Reconciliation Process	The process of two interconnected Licensees analysing the differences between their respective calculations of an interconnect bill from one party to the other and attempting to reach a settlement
Interconnect Link	The physical connection of the MTO System and the Licensee System using specified Interconnection Links to allow Interconnection Services to pass between the Parties
Interconnect Node	Is an Exchange, Server or a Platform at which Interconnect Services can be installed between MTO and the Licensee's network
Interconnect or Interconnection	Means the physical and logical linking of the Telecommunications Systems in order to allow the Users of one Telecommunications Systems to communicate with Users of the same or another Telecommunications Systems or to access services provided by another Licensee
Interconnect Path	A physical route over which a minimum 1x2 Mbit/s Interconnect Links between an MTO Interconnect Node and a Licensee Interconnect Node are installed
Interconnection Agreement	An agreement made between MTO and the Licensee in accordance with the requirements of the TRC Regulations
Interconnection Service or Services	A telecommunications service provided in accordance with an Interconnection Agreement , which may include link services, traffic conveyance services, data services, all of which being provided for the purpose of Interconnection in accordance with the TRC Regulations.

Term	Definition
ITU-T	The International Telecommunications Union, Telecommunications sector
Joint Technical Committee	A committee which comprises of representatives of the Parties which addresses technical matters concerned with the interconnection between the Parties` Systems pursuant to paragraph (2.2) of Annex (A)
Legal Interest	The maximum rate permitted by the Jordanian Laws
License	A certificate issued by the TRC providing the authority for a network Operator to run telecommunications services in Jordan
License Agreement	The License Agreement signed by and between the TRC and MTO
Licensee	Any legal person granted a License by the TRC pursuant to the Telecommunications Law and entitled for Interconnection under the relevant TRC Regulation.
Licensee Network	The total infrastructure operated by the Licensee to provide telecommunications services
Licensees	MTO and the Licensee
Manuals	A manual referred to in this Offer, which defines working practices between the Parties
Mobile Handset	Equipment for making and receiving Calls where communication with the hosting System is by radio technology
Month	30 calendar days
MTO Network	The total infrastructure operated by MTO to provide telecommunications services
NADI	Nature of Address Indicator

Term	Definition
National Numbering Plan	A document issued and published from time to time by the TRC in order to regulate the use of telephone numbers used in the Kingdom
National Numbering Record	A database issued and published from time to time by the TRC as a database available on the TRC's internet site www.trc.gov.jo
NDA	Non-Disclosure Agreement
Network	MTO Network or the Licensee Network as the case may be
Network Alteration	A physical change, including modifications to the technical standards related to Interconnection interfaces, within one Licensee's Network which is necessitated, to ensure continued efficient Operation of the Interconnect, by a change made by the other Licensee to any acceptance of this Offer without bilateral agreement
Network Plan	The specific agreement of the characteristics of reciprocal interconnection services between MTO and the Licensee including, but not limited to, target grade of service, traffic routing principles, active number ranges, capacity and traffic forecasts
Number Range	A range of telephone numbers that include mobile numbers allocated by the relevant allocating authority to either MTO, the Licensee or a Third Party
Numbering Plan	The Numbering Plan of Jordan as amended from time to time by the TRC
Off Peak	The low usage period for a specific service, as stipulated in the Price List
Operations and Maintenance	A separate document that sets out the processes and principles by which MTO and the Licensee shall maintain and operate the capacity and traffic that makes up the Network Interconnection between their respective Networks
Operator Services	Call centre Services - Provided by a Licensee to other Licensees, such as directory enquiries

Term	Definition
Order	An order for Capacity, or other Interconnection Service
Party	A party to the Agreement
Parties	MTO and the Licensee
Patch Panel	The Interface provided by MTO to the Licensee for the connection of its routing equipment
Peak	The high usage period for a specific service, as stipulated in the Price List
Person	Any individual, company, corporation, partnership, joint venture, consortium, government or governmental entity
Point of Inter-connection	The point at which MTO Network connects with the Operator Network on each Interconnection Path
Private Telecommunications Network	The Telecommunications System operated for the benefit of a single Person or a single group of Persons under common ownership to serve their own needs
Public Network Operator	A Licensee that is an Operator of a Public Telecommunications Network
Public Telecommunications Network	A Telecommunications System or a group of Telecommunications Systems for the offering of Public Telecommunications Services to Users pursuant to the provision of the Law
Public Telecommunications Services	A telecommunications service provided for compensation to the general public or any category thereof, in accordance with the Law
Quality of Service	A measured level of service performance

Term	Definition
Quarter	A period of 3 months beginning on either 1 st January, 1 st April, 1 st July or 1 st September
Ready for Service	The date on which testing of Capacity has been satisfactorily completed and the 2Mbit/s Interconnect Path is ready to be brought into active service for carrying Calls
Ready for Test Date or RFT Date	A date on which Capacity in the form of a 2Mbit/s Interconnect Path, under the direct control of a Supplying Party has been satisfactorily provided and are ready for joint testing with the other Party
Receiving Licensee	A Licensee receiving any information from the Disclosing Licensee, under the Interconnect Agreement
Receiving Party	A party receiving information from the Disclosing Party
Reference Offer	A Reference Offer (RO) is a publicly available document published by a Designated Licensee defining a standard set of technical and commercial terms by which the Designated Licensee offers interconnection services to other Licensees. It forms the basis of a transparent offer by the Designated Licensee to contract with another Licensee through a standard interconnection agreement
Release Signal	A signal which indicates that the transmission path of a Call has been disconnected
Requested Licensee	Either MTO or the Licensee who has been requested by the other, under the Interconnection Agreement, to carry out some activity in relation to the Interconnect or Interconnect Services
Requesting Licensee	Either MTO or the Licensee requesting the other, under the Interconnection Agreement, to carry out some activity in relation to the Interconnect or Interconnect Services
Requested Party	The requested licensee

Term	Definition
Requesting Party	The Party requesting either a new requirement, Network Alteration, Capacity or Data Management Amendments or other such similar requests of the other Party
RIO	The Reference Interconnect Offer produced by MTO and approved by the TRC
Route	Means Traffic Route
Routing Plan	A document forming that part of the Network Plan which is a record of all routing arrangements between the Parties
SDH	Synchronous Digital Hierarchy
Services	Means Interconnection Services
SLM	Service Level Management
Service Level Agreement	A statement of service performance defining target levels of service as given in Appendix (I) of this reference offer
Schedule	Service Schedules annexed to this reference offer.
Signalling Link	A 64 Kbit/s digital path within a 2 Mbit/s Interconnect Link between two ITU-T 7 signalling nodes which is used for signalling
STM-1 (electrical) interface	155 Mb interface specified in ITU-T recommendations G703
STP	Signalling Transfer Point

Term	Definition
Successful Call Attempt	A Call which is successfully answered, the called number is busy or the Call is delivered to the called number but does not get answered (ring tone no reply)
Technical Account Manager	A nominated contact in the contact list responsible for all technical aspects of the Interconnection with the Operator and through whom all technical enquiries concerning interconnection should be initially directed
Technical Solution	A document which provides details of the technical solution for providing the initial interconnection and where applicable other major work, which offers a solution to a request by the Operator, once agreed the Technical Solution becomes part of the Network Plan
Telecommunications Law	Telecommunications Law means the Telecommunications Law No. 13 of 1995 and its amendments
Telecommunications System	Any transmission or switching device or other device or instrument used to convey, receive or transmit telecommunications signals for the purpose of providing Telecommunications Services as the case may be
Termination	The process of handed SS 7 traffic received from local operators, over the interconnection link, to its final destination
Third Party	Any Party, other than MTO and the Licensee
Traffic	The information moved over a communication channel
Traffic Type	An identifiable type of Call between the Party's Systems
Traffic conveyance Services	Those services that involve a public telecommunications Licensee conveying (carrying) on its own network either the Traffic going out from its point of interconnection or incoming to its point of interconnection
TRC	The Telecommunications Regulatory Commission.

Term	Definition
User	A person who makes use of Public Telecommunications Services using telecommunications means
Unsuccessful attempt	A Call which fails to get the called destination because of technical faults in the Network, the Call reaches an unallocated number or the dialed digits were incomplete or insufficient to route the Call
Valid Order	An Order for Capacity, or an Interconnection Service which has been accepted by a Party to be fully complete and against which delivery of the required service is made to a Ready for Test state using standard lead times as given in the Service Level Agreement
Voice	Shall mean the conveyance of traffic in the voice band
Voice Call	A Call comprising the minimum service features necessary to support a speech path through a System destined for an end user, being an a mobile handset or a fixed line Network Termination Point
Week	A period Of seven calendar days
Working Days	Any Day other than Fridays, Saturdays, or public or religious holidays in Jordan

ANNEX B- BILLING AND PAYMENT

B.1 DEFINITIONS

In this Annex B, a reference to a clause unless stated otherwise, is a reference to a clause of this Annex B. Words and expressions within this Annex B have the meaning given in Annex A- Definitions.

B.2 RECORDING OF BILLING INFORMATION

B.2.1 Subject to paragraph B.2.2, MTO and the Licensee shall, "for each individual Call for which the Billing Licensee collects end user payments either originates or terminates", record (whether in bulk or on an itemised Call basis) and perform the billing process in accordance with paragraph B.2.2, the Billing Information.

B.2.2 The following shall be recorded for each Call type for which there is a Service Schedule and shall be based upon call data records (CDR):

1. Interconnect switch identifier; and
2. The dialled digits and/or such other information as may be agreed; and
3. CLI (if provided by the origin); and
4. The date and the time when the Answer Signal is received by the Licensee providing the Billing Information; and
5. Chargeable Call Duration (whether measured or derived); and
6. The service type involved to the level of detail specified in the relevant Service Schedule.

B.2.3 The Billing Licensee shall provide with the invoice appropriate support Billing Information, as outlined in clause B3, to enable the non-billing Licensee to validate the invoice.

B3. EXCHANGE OF BILLING INFORMATION

B.3.1 The Billing Licensee shall process the information specified in paragraph B.2.2 so as to produce the matrix outlined below in Table 1, which shall be referred to as the Interconnect Usage Report.

Table 1

Call Type	Peak rate / off-peak rate/ Blended		
Service Type	Total Number of Calls "N"	Total Duration "M"	Total Revenue "R"
TOTAL	N	M	R

or any such other form of Interconnect Usage Report as the Licensees may agree from time to time.

Where:

N = Total number of Calls

M = Total Chargeable Call Duration

R = Total Revenue Charge which shall comprise of:

1. $M \times \text{Rate per minute}$; or
2. $N \times \text{Rate per call}$; or
3. $M \times \text{Rate per minute plus } N \times \text{Rate per call}$

B.3.2 For the avoidance of doubt, the Interconnect Usage Report table shall be produced- if required differentiated for both peak and off-peak traffic and include all types of traffic that shall be paid to the Billing Licensee.

B.3.3 For charging and accounting purposes, calls shall be considered to fall entirely within the charge period in which they started.

B.3.4 The Interconnect Usage Report shall be provided by the Billing Licensee to the other Licensee together with the resulting invoice within 4 weeks from the end of the Billing Period.

B.3.5 The Billing Period for the Interconnect Traffic shall be done on monthly Basis commencing from 00.00 hours on the 1st day of each Calendar month or such other time as may be agreed from time to time between the Licensees. The end of each Billing Period shall be the 24 hours on the last day of each Calendar month or such other time as may be agreed from time to time between the Licensees.

B.3.6 Notwithstanding clause B.3.5 MTO and the Licensee shall have the right to agree to shorter billing periods.

B.3.7 The Billing Licensee shall, for a period of 24 (twenty-four) months after each Billing Period, store the Billing Information in such summary format and in such amounts as shall be sufficient to recalculate the amounts due from one Licensee to the other to take account of changes in the relevant prices. Consequently, none of the Licensees is entitled to request any information about the traffic charged before 24 (twenty-four) months.

B.3.8 If the Network or the Billing System of either MTO or the Licensee malfunctions and fails to provide all of the Billing Information necessary for the Billing Licensee to prepare an invoice, the other Licensee shall at the request and reasonable expense of the Billing Licensee use its reasonable endeavours to supply the missing Billing Information to the Billing Licensee. There shall be no legal liability on the Billing Licensee for the preparation of an incorrect invoice resulting from inaccuracies in such Billing Information provided by the other Licensee to the Billing Licensee. MTO and the Licensee acknowledge that Billing Information supplied by the other Licensee pursuant to this clause B.3.8 shall have been supplied via a suitable system and that neither MTO nor the Licensee can warrant that the information is free of error.

B.3.9 If the Licensees' monitoring of their respective Billing Information indicates a persistent inconsistency in reconciling Billing Information provided by the Licensees' respective Billing Systems, the Licensees shall use their reasonable endeavours to ascertain the cause of such inconsistency, including, subject to the agreement between MTO and the Licensee, the reference of the matter for investigation and resolution by such appropriate independent consultant

as MTO and the Licensee may agree, or in default of agreement, as may be nominated by the TRC. Such independent consultant shall act as an expert and not as arbitrator and whose decision, in the absence of manifest error, shall be final and binding. The Licensees shall cooperate in such investigation. The independent consultant's costs for such investigation shall be paid by the Licensees in such proportions as the independent consultant shall decide.

B.3.10 In the event of undetected errors in the Billing Information which result in either under or over invoicing and payment, MTO or the Licensee may request a review of the Billing Information for any Billing Period within 12 (twelve) months of the date of the end of that Billing Period.

B.3.11 In the event of the Billing Information not being available to MTO or the Licensee in time to produce the monthly invoice, MTO and the Licensee shall agree that an invoice may be produced based on an estimated Billing Information. This estimate shall be derived using the following formula for the required detail of each separate traffic stream in the Services Schedules;

- Traffic Month N = Traffic Month (N-1)
- This method of estimating invoices shall not be used for consecutive months.

B.3.12 The Billing Licensee must advise the Billed Licensee of the fact that any invoice is estimated together with the reasons for using estimates.

B.3.13 Final clearing of estimated Invoices must take place within [3] months of the date of issuance of the estimated invoice.

B.3.14 For the avoidance of doubt, where the discrepancy between billing records is less than 2% (two percent) or less than JD 10,000 (ten-thousands Jordanian Dinars), the Licensee shall pay the invoiced amount in full, further delay may be subject to Legal Interest.

B.3.15 Reconciliation of traffic flows between the Licensees shall occur monthly, while payment of invoices shall occur within [1] calendar month of the invoice being dispatched.

B.3.16 Notwithstanding clause B.3.15 MTO and the Licensee shall have the right to agree on shorter payment periods or in advance payment.

B4. INTERCONNECT BILLING RECONCILIATION PROCESS

B.4.1 During an Interconnection Billing Reconciliation Process, Licensees shall work together in good faith, taking more frequent measurements and exchanging detailed information if necessary.

B.4.2 A 2 % (two percent) discrepancy of net set off shall be accepted provided that such discrepancy amounts to less than JD 10,000 (ten-thousands), below which there shall be no Interconnection Billing Reconciliation Process, otherwise the discrepancy shall be subject to the reconciliation process detailed below.

B.4.3 If, pursuant to a dispute between the Licensees, either Licensee has notified the other of a dispute relating to such invoice and such dispute has not been resolved before the Due Date, and if the amount in dispute represents more than 2 % (two percent) and less than 3% (three percent) of net amount (excluding taxes), of the relevant invoices, and does not exceed the amount of JD 10,000 (ten thousands), the amount of dispute shall be split between the licensees on 50%:50% Basis. The amount of invoices less the Licensees' share of the disputed amount shall be due and payable on the due date.

B.4.4 If, pursuant to a dispute between the Licensees, either Licensee has notified the other of a dispute relating to such invoice and such dispute has not been resolved before the Due Date, and if the amount in dispute is equal to or more than 3% (three percent) of net amount (excluding taxes), of the relevant invoices or equal to or exceeds the amount of (JD 10,000) whichever is greater , the amount, less the disputed amount, shall be due and payable on the due date.

B.4.5 The party disputing the invoice should submit a request for recalculation of that invoice within two weeks from the date of receipt of that invoice. The Joint Technical Committee (nominated contacts) from both parties shall meet in order to reconcile the reports.

B.4.6 Time to reach a final reconciliation of any invoice in dispute is 3 (three) months from the date of receipt of the request for calculation subject to Jordanian Tax Regulations. If a resolution is not reached, the matter shall then be resolved according to the formal dispute process referred to herein.

B.4.7 Billing shall be carried out in accordance with the charging structure as outlined in the Price List and shall conform to the terms and conditions provided in clause B5 hereof.

Sample of Interconnect Traffic Bill

Call Type	Peak Min	Off-peak Min	Total Min	Peak Rate	Peak Cost	Off peak Rate	Off peak Cost	Total Cost
Mobile termination								

B5. INVOICES

B.5.1 At the end of each Billing Period the Billing Licensee shall submit to the other Licensee, invoices for charging all services provided as part of this Offer for which the Billing Licensee is entitled to charge the other Licensee during such Billing Period.

B.5.2 MTO and the Licensee shall each hand-deliver 2 (two) copies of any invoice pertaining to Interconnection Services to the other. The Licensee receiving the invoice shall sign and date one of the aforementioned copies as proof of delivery, which shall be returned to the invoicing Licensee. Alternatively, the Billing Licensee may send the invoice through a registered mail agent, in this case, the delivery notification receipt by the registered mail agent shall be considered as a proof of delivery.

B.5.3 All charges payable under the Interconnect Agreement shall be calculated in accordance with this Annex B and at the rates specified in the Price List and amended from time to time. Invoices raised pursuant to the Interconnect Agreement shall be paid in accordance with Clause 7 of the main body of this Offer.

B.5.4 For the avoidance of doubt, an invoice (including an invoice based on estimated information) shall be dated as of the date of dispatch of that invoice.

B.5.5 The Billing Licensee shall provide with the invoice appropriate Billing Information to enable the non-billing Licensee to accurately process the invoice for such services.

B6. PAYMENT

B.6.1 Subject as stated below, all charges due by one Licensee to the other shall be payable by the Due Date.

B.6.2 If, pursuant to a dispute between the Licensees, either Licensee has notified the other of a dispute relating to such invoice and such dispute has not been resolved before the Due Date, and if the amount in dispute represents less than 2% (two percent) of the total amount (excluding taxes) and does not exceed the amount of JD 10,000 (ten thousand), of the relevant invoice, the amount shall be due and payable on the Due Date.

B.6.3 If, pursuant to a dispute between the Licensees, either Licensee shall have notified the other of a dispute relating to such invoice and such dispute shall not have been resolved before the Due Date, and if the amount in dispute is equal to or more than 2% (two percent) of the total amount (excluding taxes), or equal to or exceed the amount of (JD 10,000) whichever is greater, less the disputed amount, shall be due and payable on the Due Date.

B.6.4 Notwithstanding notification of a dispute, if a Licensee fails to pay on the Due Date any amount due under the Interconnect Agreement or shall overpay any amount, the payee or, as the case may be the over-payer, shall pay or be paid interest at the Default Interest Rate (maximum rate permitted by Jordanian law) as at the Due Date or date of the overpayment in respect of any such amount outstanding.

B.6.5 If such overpayment results from information provided by the over-payer (which is not attributable to information provided by the payee Licensee), the paying Licensee shall be under no obligation pay any interest at the Default Interest Rate on the amount overpaid.

B.6.6 Interest at the Default Interest Rate (maximum rate permitted by Jordanian law) shall be payable (for late payment) from and including 5 (five) days after the Due Date or (in the case of a refund) the later of the date of payment of the original amount to be refunded and the Due Date, in each case ending on the date of payment or, as the case may be, refund in full. Such interest at the Default Interest Rate shall accrue day by day from and including the Due Date and shall not be compounded.

B.6.7 Relevant taxes shall be added to all or any part of the charges under the Interconnect Agreement and shall be paid by the Licensee responsible for making such payment.

B7. DISPUTES

B.7.1 Billing disputes between the Licensee and MTO shall be resolved according to this Annex-B in the first instance and in any event in accordance with clause 17 of the Main Offer document.

ANNEX C: MANAGEMENT OF INTERCONNECTION

C1. DEFINITIONS

In this Annex, a reference to a clause or Appendix unless stated otherwise, is to a clause or Appendix of this Annex. Words and expressions have the meaning given in Annex A- Definitions.

C2. MANAGEMENT OF INTERCONNECTION

C.2.1 Account management

C.2.1.1 MTO shall appoint a Technical Account Manager and a Commercial Account Manager to deal with the Licensee from the initial request for interconnection with MTO network, to coordinate communication on interconnection matters.

C.2.1.2 MTO and the Licensee shall agree to hold a meeting within 5 (five) working days of a meeting being formally requested by either Licensee.

C.2.2 Joint Technical Committee

C.2.2.1 MTO shall establish a Joint Technical Committee with the Licensee.

C.2.2.2 The Joint Technical Committee shall discuss and agree on the technical, operational, planning, billing and service aspects, with authority to take decisions on these matters.

C.2.2.3 The Joint Technical Committee shall consist of equal representatives, including technical and commercial staff, from both parties to be agreed upon between MTO and the Licensee; the committee may be amended from time to time upon mutual agreement as appropriate.

C.2.2.4 The joint technical committee shall meet on a regular basis not less than twice a year and upon request in cases of emergency with the meetings planned in advance. The agenda may include, among the other items raised by either party, the following items:

- Need for new Points of Interconnect and potential timing of delivery
- Analysis of traffic levels

- Analysis of service quality
- Discussion of capacity requirements
- Future forecasts
- Discussion and analysis of faults during the period since the previous meeting
- Discussion of billing processes
- Provision of relevant information and discussion of changes to either network or to the service
- Discussing preparations for coming special events, Mass Call Events and high traffic periods
- Exchange the required information in case of any Service failure and setting the required procedures to report and solve the Problem.
- Keeping the network plan up to date

C.2.2.5 The TRC may attend the meetings of such committees should it wish to do so.

C3. RECORDS OF LINKS

Both Licensees shall maintain a database of all in-service Links, data ports and any other relevant information in order to facilitate the management of the Interconnect. These databases contain the following information, as applicable, for each link and shall be reviewed and reconciled if necessary from time to time. In addition, this information shall be provided to the TRC upon request:

- Service Reference number
- Service type (Interconnect Link, Transmission Link).
- Signalling Points of Interconnection, Tandems and Transmission paths directions, designation, type and ownership.
- In-service date
- A-end exchange — name, location, manufacturer, software release
- B-end exchange name, location, manufacturer, software release
- Transmission path — direction designation, type
- Network capacity
- Associated signalling link(s)

Annex D – Technical Information

D1. VOICE INTERCONNECT

D.1.1 Interconnect Nodes.

D.1.1.1 The list in Appendix D.1 details the Interconnect Nodes at which Licensees can interconnect to MTO network.

D.1.1.2 The list contains the name, location, function, switch manufacturer and software release for each Interconnect Node and may be amended from time to time. The switching equipment currently operated by MTO is compatible with other vendor switches and can be interconnected via Signalling System No.7 (SS7) in accordance with ITU-T / White Book Recommendation Q701-708 for the Message Transfer Part (MTP), Q711-714 for the SCCP (Signalling Connection Control Part) and Q751-755 for the Operation and Maintenance Application Part (OMAP) and Q761-Q767 for integrated services user part (ISUP).

D.1.1.3 The Licensee wishing to interconnect with MTO is required to establish separate Interconnect Links for national originated traffic and international originated traffic respectively.

D.1.1.4 MTO and the Licensee should support interconnect links (whether dedicated for national traffic or international traffic termination) diversified into two different routes to each MTO Gateway for resilience. Each route should support signalling link(s) where the capacity of each route shall comply with the traffic volume and agreed Quality of Service. MTO and the Licensee shall plan where appropriate to ensure a balanced distribution of the incoming and outgoing traffic. Further details are to be agreed between the Parties for the provision of Dedicated Capacity.

D.1.1.5. Signalling links shall be carried on 64 Kb/s time slots where the Quality of Service shall comply with MTO's Quality of Service conditions

D.1.1.6 MTO shall process the calls, which are related to valid subscribers' numbers or services and presented in accordance with this reference offer; otherwise MTO shall reject all invalid calls and signal back the reason for rejection.

D.1.1.7 Depending on the expected traffic, future expansions and enhancements and service complexity, both parties shall work together to ensure the optimal planning of interconnection points.

D.1.1.8 Based on the set Quality of Service, the utilization should trigger either changes to the routing plan or the expansion of the interconnected links to avoid any congestion. MTO and the Licensee shall agree to perform the required changes. Should it be necessary to constrain the capacity for Interconnection on either temporary or permanent basis at a Gateway, MTO shall advise the Licensee of such constraint coming into force.

D.1.2 Link capacity

D.1.2.1 The Licensee should not place excessive reliance on any particular link, and should endeavour to spread interconnection traffic over a reasonable number of Interconnect Links. MTO shall offer interconnect links, to the networks of other Licensees, in multiples of E1 links (2Mbps).

D.1.2.2 In order not to endanger interconnection service resilience, MTO and Licensees shall endeavor to spread interconnection traffic over a number of diverse interconnect links (by adopting some or all of the following: 1+1 full protection/redundancy, diverse routing, path protection, diversity or ring architecture).

D.1.2.3 MTO runs its existing Network with fully-provisioned links dimensioning which prevents any kind of congestion. Except as otherwise agreed, the interconnect links shall be planned to the same standard. Related ITU standards will be referred to in case of disagreement.

D.1.2.4 The Licensee may designate an Interconnect Link as either "Fully Provisioned" or "High Usage".

D.1.2.5 The Licensee may require that an Interconnect Link be designated as being Fully Provisioned, either before the link is brought into service or at some point during its operation, subject to agreement documented in the Network Plan.

D.1.2.6 A Fully Provisioned Link is dimensioned such that congestion is in accordance with agreed level of Grade of Service between MTO and the Licensee in any normal

circumstances. MTO and the Licensee shall agree on a Grade of Service required for each Fully Provisioned link in the busy hour in the form of blocking according to Erlang B traffic calculation. MTO and the Licensee may also agree on an Utilization Factor for Fully Provisioned Interconnect Links. The Utilization Factor is the percentage occupancy of the designated Interconnect Link that the parties aim to keep the traffic below.

D.1.2.7 On Interconnect Links designated as Fully Provisioned, the Licensee shall provide in advance sufficient capacity to achieve the Target Grade of Service, as documented in the Network Plan.

D.1.2.8 If the utilization of the Fully Provisioned link regularly exceeds the defined Utilization Factor, MTO and the Licensee should agree on a timely re-routing of traffic away from the designated link or an increase of capacity, subject to the forecasting procedure set out in Annex E.

D.1.2.9 A High Usage link is dimensioned such that a reasonable degree of congestion (or blocking) is expected, as could be agreed on between MTO and the Licensee.

D.1.2.10 The designation of a High Usage link shall be in conjunction with planned overflow via fully provisioned interconnect links, as documented in the Network Plan. MTO normal operation avoids having any high-usage link (dimensioned in such a way that a reasonable degree of congestion “or blocking” is expected), but if the Licensee using Interconnect Link Services has designated an interconnect link as being high-usage, such designation shall be in conjunction with planned overflow via fully-provisioned interconnect links.

D.1.2.11 These configurations should be reflected in the Network Plan agreed between MTO and the Licensee.

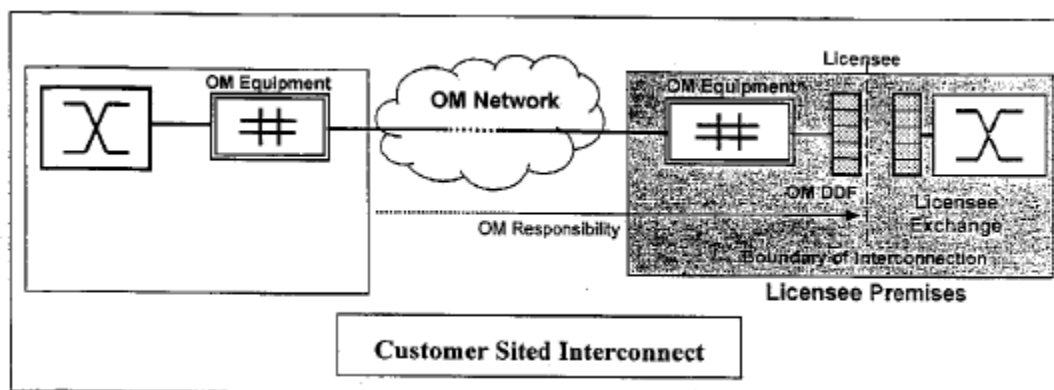
D.1.3 Network architecture

Most of MTO's core network currently uses SDH ring topology to ensure redundancy between MTO Interconnect Nodes and other MTO Network Nodes. This technology may change in the future subject to Clause 11 of the main document.

D.1.4 Delivery methods

D.1.4.1 Customer Sited Interconnect consists in Interconnection between MTO network and the Licensee's network. This is provided by means of an MTO owned and provisioned physical path which terminates on a Digital Distribution Frame which is located within the premises of the Licensee, as described in the diagram below.

D.1.4.2 MTO terminal equipment shall be housed in one, or more rack(s) or cabinet(s) to be agreed in the Network Plan. The boundary of MTO Network is the line side of its Digital Distribution Frame (figure for illustrative purposes only)



D.1.4.3 MTO shall provide Interconnect link – fiber service using any appropriate technology including systems over which the traffic in the Voice band and Signaling information between MTO network and the network of the Licensee flows. One end of the Interconnect link is terminated on the network of the Licensee whilst the other is terminated on MTO's network. The minimum capacity of MTO's Interconnect link service shall be in multiples of E1. MTO shall provide Interconnect link – microwave service using any appropriate technology including wireless systems over which the traffic in the Voice band and Signaling information between MTO's network and the network of the Licensee flows. One end of the Interconnect link is terminated on the network of the Licensee whilst the other is terminated on MTO's network. The minimum capacity of MTO's Interconnect link service shall be in multiples of E1. Further details are to be agreed between the Parties for the provision of Dedicated Capacity.

D.1.4.4. Physical Colocation consists in Interconnection between MTO network and the Licensee's network at MTO's facilities. This is provided by means of a physical path which terminates on a Digital Distribution Frame which is located within the premises of MTO. The link can be provided by MTO or the Licensee.

D.1.4.5 MTO shall provide, subject to availability (and being not reserved) at the time of the request, space in a MTO facility to the Licensees in order for them to install their own network equipment for the purposes of interconnection with MTO's Network. The facilities provided include but are not limited to electrical power, airconditioning and security, cable ducts, space on antenna masts or towers and insurance.

D.1.4.6 MTO shall cooperate in providing facilities (towers, rooms, ducts, cable, etc...) upon availability in locations where it owns property, or in a rented property if possible.

D.1.5 Signalling Standards

D.1.5.1 The MTO Network supports Signalling System Number Seven (SS7) and Integrated Services User Part (ISUP) White Book version 2 for Signalling Interconnection.

D.1.5.2 MTO shall inform the Licensee of any modification in the adopted ITU signalling system no later than 6 months prior to the implementation of such modifications

D.1.5.3 Each Interconnect Path shall include a signalling link consisting of dedicated time-slots on designated Interconnect Link(s).

D.1.5.4 Signalling links are used on a load sharing basis for redundancy.

D.1.5.5 Signalling links should have much lower occupancy than traffic links, to minimize the risk of losing signalling messages and the need to reduce signalling latency. MTO and Licensee shall dimension signalling links to avoid congestion, and the number of signalling links should be established for normal and predictable failure conditions. The signalling network should be defined by MTO and the Licensee and documented in the Network Plan.

D.1.5.6 MTO uses a stand-alone Signalling Transfer Points (STP) integrated within MTO's interconnection nodes that shall be used for all signalling interconnection.

D.1.5.7 MTO shall permit the use by other Licensees of SS7 signalling via MTO Interconnection nodes or another national carrier to Licensees outside Jordan for the transit

of incoming and outgoing roaming MAP and SMS signalling traffic, subject to available technology and up on agreement between MTO and the Licensee.

D.1.5.8 The utilization of SS7 links shall be maintained within ITU guidelines, currently:

- Critical load per SS7 link: 0.36 Erlangs.
- Maximum load per SS7 link: 0.44 Erlangs.

D.1.5.9 When use bi-directional interconnect links and in order to minimize the number of simultaneous traffic seizures, each switch shall search its traffic channels in the reverse sequence to the other switch. Unless otherwise agreed the Licensee switch shall seize channels in descending order and MTO switch shall seize channels in ascending order.

D.1.5.10 Network Indicators:

- With international carriers Licensees shall use INATO (Service Information Octet (SIO) for network is 00).
- Within their network Licensees shall use NATO (SIO for network is 10).
- Between operators networks Licensees shall use NAT1 (SIO for network is 11).

D.1.5.11 National Signalling Point Codes (NSPC) shall be allocated per exchange by TRC and shall be provided in advance of order requests for Signalling Links

D.1.5.12 International Signalling Point Codes are assigned to each country by ITU and shall be allocated in Jordan by TRC.

D.1.5.13 Within Jordan, MTO uses the NSPC configuration x-y-z where x= 6 bits, y = 4 bits and z = 4 bits.

D.1.5.14 In order to prevent call forward looping, calls that have been forwarded by either MTO or the Licensee shall be distinguished by their Calling Party Number (CPN). Where either Network receives a call set-up with a CPN indicating a forwarded call, the Network shall suppress any further call forward which would result in these calls being routed back across the Interconnect.

D.1.6 Synchronisation

The Licensee should synchronize its switching network from the 2Mbit/s Interconnect Links interconnecting with MTO. These links shall be identified and marked on MTO and the Licensee's databases. Both parties should put procedures in place to prioritize the availability of these circuits.

D.1.7 Echo Loss

D.1.7.1 MTO and the Licensed Operator shall seek to meet the design objective for echo loss (as defined in ITU-T Recommendation G122) presented at the MTO Switch Connection and the Licensed Operator Switch Connection (as appropriate) with equal relative levels for both directions of transmission of 20dB, with no connections being less than 15dB for practical implementation.

D.1.7.2 CPE connected via a 2-wire interface can have significant effect on echo losses. For planning purposes MTO and the Licensed Operator shall assume that CPE will present an impedance of 600 ohms.

D.1.7.3 CPE and customer networks are likely to determine the largest part of echo losses in the case of 4-wire connection to the MTO and the Licensed Operator Networks. For planning purposes MTO and the Licensed Operator shall assume that the CPE meets a 20dB echo.

D.1.7.4 GSM Echo Loss: The echo loss under operational conditions for a GSM based system shall be at least 46 dB referred to the switch connection with any Customer volume control set to its maximum output (i.e. loudest) position. ETSI 300 540 provides further information related to echo loss.

ITU—T Recommendation G.165 provides guidance for the performance of echo control devices when switched into a connection. ITU-T Recommendations G151 and G.473 refer.

D.1.7.5 Echo Control – GSM: The GSM system shall provide echo protection as set out in ETSI 300 540.

D2. MTO Transmission Network

D.2.1 Transmission standards (for Interconnect)

D.2.1.1 Most of MTO transmission equipment support the SDH system as per the ITU Recommendations G.703, G.707, G.708, G.709 and multiplex them into STM-1 (155 Mbps) or into STM-4 (622 Mbps) or into STM-16 (2488 Mbps) based on SDH hierarchy as specified at ITU-T Rec. G.782. The equipment is used to assemble various payloads conforming to ITU-T Recommendations. The SDI-I equipment operates on single mode fibres conforming to ITU-T Rec. G.652, or G.655

D 2.1.2 The SDH equipment complies with ITU-T Recommendations G.781, G.783, G.784, G.957, G.958 and any other relevant ITU-T recommendations. External timing and timing of incoming STM-N shall be carried out in compliance with ITU-T.

D.2.2 Digital Interface

The digital interface equipment is compliant with ITU-T Rec. 0.707 and G.985.

D.2.3 Electrical Interface

D.2.3.1 Interface for 2 Mbps Symmetrical 120 ohms interfaces for 2.048 Mbps in accordance with ITU-T Recommendation 0.703/6.

D.2.3.2 Interface for high capacity bit rates: Interfaces for 34.368 Mbps and 139.264 Mbps in accordance with ITU-T Recommendation G.703/8 and /9.

D.2.3.3 Interface for STM-1 electrical (STM-1): Interfaces for STM-1e, 155.520 Mbps in accordance with 1TU-T Recommendation G.703/12.

D.2.4 Optical Interface

Aggregates optical interface unites of all short haul (S) and long haul (L) types as specified in ITU-T Recommendations G.957 for STM-1, STM-4, and STM-16 respectively.

Appendix D.1 — MTO Interconnect Nodes Table D.1.I (to be filled individually by each designated licensee)

MTO node	Function	Location	Hardware supplier	Switch type	Software release

Annex E – Interconnection Processes

E1. FORECAST OF LINKS REQUIREMENTS

E.1.1 Provision of Interconnect forecast data by the Licensee

E.1.1.1 MTO requires Licensees using MTO interconnection services to provide forecasts, in good faith, of traffic and interconnect capacity and routes between the Licensee and MTO network as accurately as is reasonably possible.

E.1.1.2 In the event that the Licensee does not provide forecasts or is believed not to provide forecasts in good faith, MTO has the right to initiate a Dispute under Clause 17 of the Main Offer document and amend the forecast in the interim until the Dispute is resolved.

E.1.1.3 Capacity forecasts shall be given in terms of E1s for a period of 2 (two) years in advance. These forecasts shall be updated every quarter by the Licensee in accordance with the template provided at paragraph E.1.3 below.

E.1.2 Capacity forecasting restrictions

E.1.2.1 The Licensee shall update its capacity forecast on January 1st, April 1st, July 1st and October 1st of each year by submitting the Capacity Forecasting Form (see E.1.3 below) to the MTO Commercial Account Manager.

E.1.2.2 Increases in capacity orders for the next quarter shall be subject to availability of equipment and resources. MTO can offer no guarantees that such increases in capacity can be satisfied.

E.1.2.3 Decreases in capacity orders for the next quarter shall be accepted subject to charges being levied by MTO on the Licensee for any costs reasonably and necessarily incurred as a result of planning for and potentially purchasing of relevant equipment that cannot be reasonably used elsewhere in the MTO network.

E.1.2.4 Increases and decreases in capacity for the remaining quarterly periods are subject to the following restrictions:

	Current quarter	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 5	Quarters 6,7 and 8
Change permitted	No change	No change	±10%	±15%	±20%	±25%	±30%

E.1.3 Capacity Forecasting Form

MTO Interconnect Node name	Licensee interconnect Node name	Interconnect Route designation	Type of Link	Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8

Note: MTO Interconnect Node names should appear as in the list of MTO Interconnect Nodes.

The Interconnect Route must be clearly defined with the address of the Licensee's Node, building plan and other necessary details required to deliver a physical interconnection route to the Licensee's Interconnect Node. Measurements are in multiples of E1s.

E.1.4 Reactive Capacity Planning

The Licensee and MTO shall agree to measure traffic on all Interconnect Links to identify congestion and maintain the Target Grade of Service for voice interconnection and the utilization of SS7 signalling links. In the event that the traffic, capacity and route forecasting processes have failed to maintain the Target Grade of Service, MTO and the Licensee shall agree to work together in good faith to resolve congestion issues by planning as necessary further interconnection capacity or new traffic routing plans in an expedient manner and permit the free flow of traffic between the networks according to the Target Grade of Service. Either Licensee shall have the right to call a meeting of the Joint Technical Committee under clause C2 of Annex C to progress resolution of congestions.

E.1.5 Traffic Forecasting Form

Traffic forecasts shall be given in terms of Erlangs during the peak and off-peak `Busy Hours' for a period of 2 (two) years in advance. These forecasts will be updated every quarter by the Licensee as per the Traffic Forecast in the following format (P = peak, OP = offpeak):

MTO Interconnect Node Name	Licensee Interconnect Node Name	Route designation	Q1		Q2		Q3		Q4		(--)		Q8	
			p	op	p	op	p	op	p	op	p	op	p	op

Note: MTO Interconnect Node names should appear as in the list of MTO Interconnect Nodes at Appendix D.1.1. Measurements are in Erlangs.

The Table is for illustrative purposes. The Parties can deviate from it if they find a solution that works better for them

E2. PLANNING OF NEW POINTS OF INTERCONNECTION

E.2.1 Interconnection of New Switching Equipment

Prior to making Interconnection available on new switching facilities, MTO or the Licensee, whichever is the equipment owner, shall have completed all commissioning and testing activities in accordance with the recommendations of the switch vendor and industry best practice, including but not limited to inter-working testing within its own network, and activated the SS7 Point Code assigned by TRC.

E3. ORDERING PROCESS

E.3.1 General

E.3.1.1 A request for Interconnection services detailed in Service Schedules 2.01 and 2.02 shall be placed by the Licensee using the Order Form provided in Appendix E,1 and sent to the Commercial Account Manager by Letter, fax or e-mail.

E.3.1.2 Requests for services other than those listed in E.3.1.1 above shall be made by letter addressed to MTO Commercial Manager.

E.3.2 Order processing

E.3.2.1 All the relevant sections of the Order Form must be completed for an order to be valid. The Form should be sent to MTO Commercial Account Manager by mail or fax.

E.3.2.2 Upon receipt of the order, MTO Commercial Account Manager shall review the form for validity. A response shall be sent to the Licensee within fifteen (15) working days of receipt of an order, stating whether the order is accepted or not.

E.3.2.3 In case of no acceptance in whole or in part, the Commercial Account Manager shall state the reason for this in writing to the Requesting Licensee together with a proposed alternative solution subject to availability, if available. A copy should be addressed to the TRC. The Licensee has the right to start a Dispute under Clause 17 of the Reference Offer. The TRC shall investigate with the co-operation of both Licensees and may make a determination on the subject.

E.3.2.4 Accepted orders may require a feasibility study, which may cover any aspects of service implementation, including but not limited to civil works and constructions, rights of way and planning permissions from municipal and / or governmental authorities, with the co-operation of the Licensee if required, a site survey may be necessary as well. In any event, within 15 (fifteen) working days of receipt of a valid order the Commercial Account Manager shall fill in the Order Confirmation section on the Order form, indicating the planned delivery date to the Licensee, and return it to the Requesting Licensee.

E.3.2.5 The Licensee and the TRC have the right to request a progress report within 3 working days at any time following the notification of the delivery date.

E.3.3 Lead times for delivery

Lead times for delivery vary according to the type of service and requirements. Lead times for delivery are detailed in the Service Level Agreement.

E4. SERVICE HANDOVER

E4.1 Once the requested service is implemented, MTO Commercial Account Manager shall fill the Service Handover section on the order form, stating the handover date. The form should be sent to the Licensee together with a report detailing the result of testing.

E4.2 The Licensee should confirm receipt of delivery and acceptance of the service by signing and returning the order form within twenty-four (24) hours of receipt of the Form.

E5. ORDER CANCELLATION

Order cancellations must be notified to MTO by the Licensee in accordance with Clause 26 of the Main Offer and shall incur charges as per the relevant Service Schedule for the specific service.

APPENDIX E.1 – Service Order Form (figure for illustrative purposes only. MTO and Licensees will adapt these forms with respect to the names of the involved companies)

(Licensees are advised to fill in one form per requested service)

ORDER DETAILS (TO BE FILLED BY REQUESTING LICENSEE)	
A- Licensee Details	
Order Date: dd/mm/yyyy	Licensee order reference:
Address:	Contact name:
Billing Address (if different from above):	Phone No.:
	Fax No.:
	E-mail address:
B- Service Requirement:	
<input type="checkbox"/> Orange Mobile National Voice Termination (ss 2.01) – Traffic volume: _____ K Min/Month	
<input type="checkbox"/> Orange Mobile International Voice Termination (ss 2.02) – Traffic volume: _____ K Min/Month	
C- Interconnection Nodes:	
Site A:	Site B:
D- Required Delivery Date:	
<input type="checkbox"/> As per Basic Service Level Offer <input type="checkbox"/> Other (specify): _____	
E- Additional Information:	
Note: This order form shall be completed and signed by a duly authorised representative of the Licensee	
NAME:.....SIGNATURE:.....	

ORDER VALIDATION (FOR Orange Mobile USE ONLY):	
Date: dd/mm/yyyy	Order Receipt Date: dd/mm/yyyy
Order Accepted: Yes <input type="checkbox"/> No <input type="checkbox"/>	
Reason for rejection:	
Orange Mobile Order Reference Number:	

ORDER CONFIRMATION	
Date:	Order Receipt Date:
Orange Mobile Service Reference:	Orange Mobile Order Reference Number:
Planned Delivery Date:	Installation Fee:
	Annual Rental:
Comments:	

SERVICE HANDOVER	
Date:	Order Receipt Date:
Orange Mobile Service Reference:	Orange Mobile Order Reference Number:
Installation and Testing completed: [detail]	

Comments:
Handover Date:

Annex F - Operations and Maintenance Manual

This Operations and Maintenance Manual sets out the processes and principles by which MTO and the Licensee shall maintain and operate the capacity and traffic that make up the Network Interconnection between their respective Networks.

F1. NETWORK TRAFFIC MANAGEMENT PRINCIPLES

F1.1 MTO and the Licensee shall be responsible for monitoring and controlling the flow and routing of traffic in real time or as close to it as is possible to maximize the effective use of their own network.

F1.2 MTO and the Licensee shall carry out monitoring activities at regular intervals and at various levels of the network hierarchy to optimize the use of network capacity and the quality of service. MTO and the Licensee shall, in accordance with the terms of the Interconnection Agreement between them, deploy resources to carry out all activities required to monitor and maintain the quality of service. If Licensee considers that the use of NTM (Network Traffic Management) controls by MTO is acting to the detriment of Licensee Network's performance, MTO and Licensees should consult on the matter.

F1.3 Either Licensee can also carry out specific monitoring activities on a case-by-case basis at its discretion or in response to a request from the other Licensee where this is technically and economically feasible.

F1.4 An MTO telephone number is available on a 24 hr basis to receive network traffic management queries from the interconnected Licensee (Contact Points shall be listed in the Network Plan).

F1.5 Either Licensee shall use reasonable endeavors to notify the other Licensee when major problems occur which are likely to affect interconnect traffic. To that effect, the Licensee shall provide a 24hr contact point to receive network traffic management information. In the event of major service failure in particular, Licensees shall share information in accordance with Clause 1.4.2 of the Main Offer in order to resolve the problem and restore service. Under no circumstances however shall the Licensees be required to provide commercially sensitive information, nor shall the information supplied be used for any other purpose than network traffic management.

F2. INTERCONNECT TRAFFIC MANAGEMENT

F2.1 Routing Management

F2.1.1 All Traffic routing should be carried out in accordance with the National Numbering Plan, as published by TRC and amended from time to time.

F2.1.2 National numbers shall not be passed in the international format.

F2.1.3 Each Licensee shall manage the routing of outgoing traffic up to the network boundaries and incoming traffic from the network boundaries to their destination.

F2.1.4 MTO and Licensee shall, in good faith, co-operate to minimize the impact of congestion in its network on the other Licensee's network. However, the affected network shall use all efforts to reduce the impact of excessive traffic.

F2.1.5 Either Licensee shall be able to require the other to deliver incoming traffic to their networks on specific interconnect links and to request the use of proportional routing or other traffic management techniques.

F2.1.6 Each Licensee shall pass onto the other the full CLI and CLIR for all calls, to the extent that the CLI and CLIR are available.

F2.1.7 MTO shall not terminate any incoming traffic with a manipulated CLI.

F2.1.8 All traffic on the interconnection links dedicated for national traffic must all carry the correct National Caller ID (CLI) of the calling party. All traffic on the interconnection links dedicated for international traffic must all carry the correct National Caller ID (CLI) of the calling party as far as available, but not less than 90%.

F2.2 Routing of the Licensee traffic towards MTO:

F2.2.1 The Licensee shall convey traffic to MTO of the type described in the relevant Service Schedules included in the Interconnection Agreement pursuant to this Reference Offer.

F2.2.2 In order to ensure correct routing and accounting, the following table defines the minimum number plan required to be implemented in the Licensee's digit analysis:

Termination		
Customer Care		
Directory Enquiries		
Operator Assistance		

F2.3 Changes to Call Routing

Changes to call routing shall be detailed in the Network Plan.

F2.4 Traffic Controls

F2.4.1 Either Licensee may request a control from the other in instances where it may be necessary to re-direct or reduce the volume of traffic to the network of the Licensee.

F2.4.2 Either Licensee may request load sharing of traffic or overflow routes. Such arrangements are subject to agreement between the two Licensees and should be documented in their Network Plan.

F2.4.3 When taking such measures unilaterally, either Licensee should inform the other immediately. Advice of removal of the control should also be given without unnecessary delay.

F2.5 Mass Call Events

F2.5.1 Mass Call Event is defined as a period of high traffic volumes (planned or unplanned).

F2.5.2 Either Licensee planning a Mass Call Event shall provide the other party where possible with reasonable advance notice.

F2.5.3 The Licensees shall cooperate to ensure that, either additional capacity is provided on a temporary basis, or that traffic controls in accordance with clause F2.4 are applied in order to maintain the service.

F2.6 New Numbering Blocks

Prior to opening new numbering Blocks on its network, either Licensee should notify the Interconnected Licensee in writing at least one (1) month in advance of the activation of such numbers.

F3. QUALITY OF SERVICE MEASURES

F3.1 General Statement

F3.1.1 MTO shall provide call conveyance Interconnection Services to the Licensee at same level of quality as for its own customers.

F3.1.2 Both Licensees shall be responsible for regularly measuring and monitoring the traffic and Quality of Service on the Interconnect links between their networks, and shall be able to do so in real time or as close as it is possible.

F3.1.3 MTO and the Licensee shall work jointly to achieve this goal in accordance with general standards and methods specified by ITU, and the processes outlined in this Operations and Maintenance Manual.

F3.1.4 MTO shall provide traffic and Quality of Service reports upon request from TRC, in accordance with its License obligations.

F4. FAULT MANAGEMENT

F4.1 Principles

F4.1.1 Each Licensee shall maintain its own fault reporting center which shall be responsible for handling the fault between Networks, coordinating fault clearance (including escalations) within its own Network and subsequently reporting the clearance of the fault to the other Licensee. MTO and the Licensee's reporting tools shall be used to handle and show the number of reported faults to them.

F4.1.2 Each Licensee shall provide twenty-four (24) hour designated point of contact for fault reporting, the contact should be made for direct person-to-person connection.

F4.1.3 The details of designated Points of Contact for each Licensee shall be included in the Network Plan.

F4.1.4 Licensees detecting a fault which may affect Interconnection Services shall endeavor to inform other Licensees (within one hour), regardless of the nature and ownership of the fault, and of the fault reporting procedure outlined below.

F4.1.5 The Licensee that detects a possible fault shall process the fault report internally before requesting the assistance of the other party in providing diagnostic support. Each Licensee shall make every effort to determine whether the fault is genuine and to identify the location of the fault.

F4.2 Fault report processing

F4.2.1 All faults shall be reported using the Fault Report form provided in Appendix 2 Fault Report Form of this Operation and Maintenance Manual and transmitted to the other Licensee by fax or email to the Point of Contact designated in the Network Plan, and to be confirmed by a phone call afterwards.

F4.2.2 The Fault Report shall include sufficient information to allow the recipient(s) to identify the fault, carry out diagnostics and progress the fault to restoration.

F4.2.3 When a Licensee reports a fault to the other Licensee, the fault shall be specified at the reporting time, all details shall be exchanged between both parties.

F4.2.4 At any time the either Licensee may change the designation of a fault. In such circumstances the start time of a fault for such re-designation will be the time the re-designation is sent by fax to the other Licensee.

F4.2.5 Following a Fault Report, the Licensees shall agree about the ownership of the fault. The fault owner shall then assume responsibility for restoration, including possible roll back to initial configuration when the fault comes from a change, and the eventual report back of service restoration, the licensees have to meet on a regular basis every three months to review the fault reports case-by-case in order to investigate the cause of the fault.

F4.2.6 The owning Licensee shall endeavor to identify the fault and respond by telephone to the other Licensee within one hour, indicating whether the fault has been identified and whether it accepts ownership of the fault. This information shall be also included in the Fault Response section of the form showing the date and time of the response.

F4.2.7 Both Licensees shall nevertheless co-operate in any investigation and follow up actions and keep each other informed by telephone on the status of the progress of the fault clearance in a timely manner.

F4.2.8 MTO shall respond to a Fault Report in accordance with the target response time specified in the Service Level Offer.

F4.2.9 The target repair time for each type of fault is detailed in the Service Level Offer.

F4.2.10 MTO should priorities the clearance of faults in accordance with service target response time and target repair time specified in the Service Level Offer.

F4.2.11 The fault will be logged through the SLM tool once the fault report has been created in order to monitor the performance indicators of the Service Level Offer.

F4.2.12 Once the fault has been repaired, the Licensee in receipt of the initial Fault Report shall advise the other Licensee by telephone, fill in the Fault Closure section on the relevant form and return it back to the originating Licensee.

F4.2.13 The fault should be considered to be cleared when the Licensee who initiated the Fault Report has accepted the fault clearance information or confirms a successful test within 2 hours of receipt of Fault Closure. For the avoidance of doubt where clearance is accepted in accordance with this clause F4.2.13 the clearance time shall be the time the owning Licensee reported the clearance by telephone in accordance with clause F4.2.12.

F4.2.14 If a fault is submitted to MTO, that is proved to be isolated to MTO's network and the affected Operator site visit is required to resolve this fault, MTO will arrange for repair appointment with the operator. If the fault resolution lead-time is delayed or affected due to MTO experiencing difficulty in contacting the Operator or accessing his site or his site was not equipped with necessary power outlets required for the test equipment ...etc. The fact that there has been a delay of the fault lead time as a consequence it will be flagged against the operator. The reason for delay in the fault resolution will then be clearly visible to the operator and the fault will be considered as End User Problem. Thus the operator needs to open new ticket when he can comply with MTO fault handling procedures. And it will be dropped from all penalty calculation (Time to Repair).

F4.3 Fault escalation

F4.3.1 Where a fault persists and progress of the remedy is not satisfactory, the fault may be escalated according to the fault escalation timescales and the escalation reporting levels shown in clause F4.3.3. If the escalation time has expired but both Licensees are satisfied with the progress of the fault restoration, no immediate escalation is necessary.

F4.3.2 A Licensee shall immediately inform the first level of escalation within the respective Licensee's organization at the same time that the Licensee who detected the fault notifies the fault reporting point of the other Licensee that the fault is being escalated in accordance with this clause F4.3.

F4.3.3 All requests for escalation shall be notified through each Licensee's fault reporting point, as detailed in the Network Plan, and according to the following indicative timescale:

Minimum Time before Escalation (Commencing after the Response Time)		
First Level	Second Level	Third Level
Immediate	Two (2) hours	Four (4) hours

F4.3.4 Persistent faults or issues which cannot be resolved satisfactorily through the normal channels shall be escalated to a higher level to expedite the fault clearance process.

F4.3.5 The Licensees shall notify their respective and appropriate officers for problems encountered in the implementation or execution of the fault escalation procedures.

F5. INTERCONNECTION MAINTENANCE PROCESSES

F5.1 General principles

F5.1.1 Interconnection maintenance processes are defined as those processes that are used to enable MTO and Licensees to maintain the interconnection and interconnection services.

F5.1.2 The maintenance processes shall be agreed on between MTO and the Licensee based on the offered interconnection service, but it shall include:

- a. Operational testing
- b. Planned Engineering Works
- c. Network protection and safety

F5.1.3 MTO and the Licensee shall agree on the procedures used between them to maintain the interconnection services, as detailed in the following subsequent clauses.

F5.1.4 Any testing for the Interconnection Link and/or Signaling Link which might affect traffic flows should be scheduled during the low traffic period with the prior approval of the MTO and the Licensee. These tests shall be, as reasonably practicable, kept to a minimum. Each Licensee shall be responsible for testing and monitoring the performance of its own Network.

A request for testing by either Party shall be notified in writing to the other Party at least (5) five working days before the intended date of performing the testing. Upon receipt of the written request, the requested Party shall respond in writing within (2) two working days.

If the requested Licensee is not able to perform the testing on the proposed test dates, an alternative schedule should be submitted, in good faith, to the requesting Licensee.

F5.2 Joint Interconnect Testing

F5.2.1 Each Licensee shall be responsible for testing and monitoring of the performance of his own Network. Testing of the interconnection link and the signaling Links shall be kept to the minimum and shall be avoided during the busy hour periods.

F5.2.2 No testing that may adversely affect an Interconnect Service shall be carried out before MTO and the other Licensee have agreed to the conduct of such tests, including any routine tests.

F5.2.3 The requesting Licensee shall book the required test date and the testing duration at least five (5) working days prior to the requested testing date. The requesting Licensee shall submit the application form as contained in Appendix 4 - Interconnect Testing Request Form of this Operation and Maintenance Manual to the requested Licensee. The request shall contain the necessary details for the planning of testing as well as the proposed test schedule.

F5.2.4 The requested Licensee shall respond in writing within (3) three working days upon receipt of the written request, stating whether it is able to accommodate the testing on the proposed test dates. If the requested Licensee is not able to perform the testing on

the requested test dates, an alternative schedule should be submitted in response to the initial request and discussed in good faith with the requesting Licensee.

F5.2.5 The requested testing duration is subject to mutual agreement by the Licensees.

F5.2.6 The Licensees shall act in good faith and make reasonable endeavors to complete all test items within the agreed testing period.

F5.2.7 Any request for extension to the testing duration beyond the agreed time frame is subject to mutual agreement. Any request for extension should be made at least two (2) working days prior to the end of scheduled testing.

F5.2.8 Neither Licensee should be held responsible for any delay in completing the agreed testing unless such delay is directly attributable to one Licensee's fault or negligence.

F5.3 Planned Engineering Work

F5.3.1 For any planned engineering work within one of the Licensees Network, which shall result in momentary outage of Interconnection Services between the interconnected networks, the Licensee carrying out the engineering work shall inform the other Licensee in accordance with the procedure detailed below.

F5.3.2 The details of the works to be carried out shall be recorded and communicated on the "Advice of Planned Engineering Work" form in Appendix 3 - Advice of Planned Engineering Work Form of this Operation and Maintenance Manual. The Advice form shall state the date, time and duration of such works, the impact to the conveyance of Calls between the Licensees' network, any management procedures required, and any contingency measures to be taken by either or both Licensees. The schedule and duration of the planned work proposed by the requesting Licensee shall be agreed upon by the other Licensee before commencement of such works.

F5.3.3 The requesting Licensee, prior to a planned engineering works, shall give advance notice of at least five (5) working days to the other Licensee.

F5.3.4 The requesting Licensee shall notify the other Licensee when the work is complete by filling the relevant section of the "Advice of Planned Engineering Work"

form, which should be transmitted to the other Licensee without unnecessary delay.

F5.4 System Protection and Safety

F5.4.1 Both Licensees shall agree to take adequate measures to maintain the integrity of their networks and to ensure the protection and safety of persons and equipment at all times.

F5.4.2 Integrity of the network refers to the ability of its systems to preserve and retain their original operational status and remain unaffected by Interconnection with other networks.

F5.4.3 Both Licensees shall ensure

1. That adequate measures are taken to prevent the transmission of any signaling message across to interconnected networks which does not comply with industry standards; and
2. That efficient arrangement for screening functions and rejection of non-compliant messages are established to detect signals which do not comply with industry standards.

F5.4.4 Each Licensee is responsible for the safe Operation of its network and shall, so far as is reasonably possible, take all necessary steps to ensure that its side of the network and its network operations:

1. Do not endanger the safety or health of any person, including employees and contractors of the other Licensee; and
2. Do not cause physical or technical harm to the other Licensee's network, including but not limited to causing damage, interfering with or cause deterioration in the operations of the other's Licensee network.

APPENDIX 1 — NETWORK PLAN

The Network Plan shall be agreed between MTO and the Licensee in accordance with clause 1.2 of the Main Document and reviewed in accordance with clause 10 of the same document.

The Network Plan shall contain those elements of necessary specific information required to achieve interconnect between MTO and the Licensee. Such information shall include but shall not be limited to.

1. Diagram detailing MTO Nodes, Licensee Nodes and the routes between them
2. Capacity and traffic forecast for the Licensee
3. Capacity orders
4. Requirements for new Service Schedules
5. Number ranges for both MTO and the Licensee
6. Contact points for both MTO and the Licensee
7. Planning of new Interconnection Nodes
8. Changes to call routing
9. Notification and information relating to planned network upgrades
10. Date of next review
10. Date of next review

APPENDIX 2 – FAULT REPORT FORM (figure for illustrative purposes only)

FAULT REPORT FORM	
Time of Report: (hh:mm) :	Date: (dd/mm/yyyy) .../.../.....
Licensee Details:	
Licensee Name:	Address:
Report Contact Name:	E-mail address:
Phone Number:	Fax Number:
Fault Details:	
Service Affected: Interconnect Link <input type="checkbox"/> Transmission Link <input type="checkbox"/> <input type="checkbox"/> Other:	
Service Reference:	Fault Reference:
Fault Description/symptoms:	

Time of Response: (hh-mm) :	Date: (dd/mm/yyyy) .../.../.....
Response Contact Name:	E-mail address:
Phone Number:	Fax Number:
Fault Identified: Yes <input type="checkbox"/> No <input type="checkbox"/>	Ownership accepted: Yes <input type="checkbox"/> No <input type="checkbox"/>
Diagnostic:	
Fault Reference:	Target Repair Time: hh-mm on dd/mm/yyyy
Action taken:	

FAULT CLOSURE	
Fault Reference:	Contact Name:
Time of Closure: (hh-mm) :	Date: (dd/mm/yyyy)/...../.....
This is to confirm that the Fault has been repaired/cleared and hereby close the instance	
Comments:	

APPENDIX 3 — ADVICE OF PLANNED ENGINEERING WORK FORM

Licensee Name: Contact Details: Name : Phone No.: Mobile No.: Fax No.: Email address:		Date : dd / mm / yyyy <i>(At least 5 days before start date)</i>	Reference No.:
Planned Work Details			
Subject : <i>(Title of the planned works)</i>	Location: <i>(location of the planned work)</i>	Type of planned works: <i>(Signalling Link, Interconnection Link, Exchange or Transmission)</i>	
Reason of planned work			
<i>(Describe the reason for the planned work i.e. due to routine/urgent maintenance or software upgrade etc.)</i>			
Planned Work Duration:			
Start Date: <i>(Indicate the date of planned work)</i>	Start Time: <i>(Indicate the start time of planned work)</i>	Service Interruption Duration: <i>(Provide an estimated duration of service interruption)</i>	
Impact of Planned Work on Services: <i>(Affects Traffic? which direction, signalling Links, Interconnection Links? etc.)</i>			
Remarks			
<div style="background-color: black; width: 150px; height: 20px; display: inline-block;"></div> <i>(Indicate the name and designation of the officer issuing the advice of planned work)</i>			

APPENDIX 4 – INTERCONNECT TESTING REQUEST FORM (figure for illustrative purposes only)

Application Form For Interconnect Testing
OPERATOR
Name of Licensee
Business Address
I wish to apply for.....Test For the period from.....to.....(.....Days)
In support of my application, I provide the following Technical Information for the Setting up of Interconnect Testing.

Annex G – Price and Charges List

Charges List

Item	Item Description	Effective Date	Charge	Charge Basis
	Conveyance of Calls as set out in Service Schedule - Mobile Traffic Termination Service		JD / min	Per minute, calculated per second
[REDACTED]	Conveyance of International Inbound Calls as set out in this Service Schedule - International Inbound Calls to MTO Network		JD / min	Per minute, calculated per second
[REDACTED]	Interconnection Links		JD / set up JD / month	One time set up and recurring monthly
	Physical collocation		JD / set up JD / month	One time set up and recurring monthly

Annex H – Collocation & Infrastructure Sharing Interconnection Service Schedule

H1. Description of Service

H1.1 MTO Collocation and Infrastructure Sharing Service shall be defined as facilities, if available (and unreserved for other Licensees or purposes) at the time of the request, in a MTO site provided exclusively for the Licensee in order for them to install their own network equipment for the purposes of interconnection with the MTO network or another Licensee's network.

H1.2 The facilities offered include floor space for standard cabinet in separate or shared room (MTO's choice). The services will not be limited to space but can also include sharing of ducts and dark fibre, power supply (AC / DC), and air-conditioning if the parties so agree.

H1.3 MTO may lease to Licensees, existing facilities under the control of MTO and exceeding its projected needs, if required for use by the Licensee, it being understood that MTO shall not be required to construct new facilities for lease requesting Licensees.

H1.4 Collocation environment:

- Power options in collocation facilities are as follows:
 - Permanent 230/240V AC
 - Permanent 48V DC
- The environment in collocation space includes the following features:
 - Lighting system
 - Fire system (unguaranteed)
 - Air conditioning (unguaranteed)

H2. Terms & Conditions

H2.1 MTO offers collocation facilities to Licensees provided:

H2.1.1 There is sufficient, available and/or unreserved facilities in the requested site;

H2.1.2 Collocation is technically feasible and will not adversely affect the operational integrity of existing equipment at the Collocation site under the control of MTO or any other Third Party.

H2.2 MTO offers collocation facilities and infrastructure sharing services, unless otherwise stated in writing, solely for the purposes of housing Licensee equipment required for interconnection between MTO and the Licensee and the performance of tasks by Licensee staff necessary for the establishment, operation and maintenance of interconnection services between the Licensee and MTO. This may also include services according to Section H.1.2. above if so agreed by the parties.

H2.3 Collocation facilities are provided for a minimum 1 (one) year lease, severable by either party, based on a reasonable reason, on a six months prior notice in writing otherwise the service will be renewed for an additional year.

H.2.4 MTO Facilities and Infrastructure Sharing service will be provided in a transparent manner to the Licensee based on a first-come, first served principle. If the available space at a specific site does not fit the first-come Licensee and there are no alternative solutions, then priority will be given to the next-come Licensee.

H.2.5 The Licensee shall provide a Reservation Request to MTO stating the requirements for MTO Facilities and Infrastructure Sharing. The Reservation Request shall contain sufficient information on the extent of space and facilities required so that MTO is able to respond and shall conform to the format specified from time to time in the Provisioning Manual.

H.2.6 MTO shall evaluate the Reservation Request and shall notify the Licensee within fifteen (15) Working Days if it agrees to provide the requested MTO Facilities and Infrastructure Sharing or if it is unable to provide the requirement in the Reservation Request, in such a case giving clear reasons for the rejection and where applicable suggested alternative arrangements.

H.2.7 If the Licensee's request for MTO Facilities and Infrastructure sharing service is rejected by MTO due to non-availability, MTO - where applicable - will propose alternative solutions,

H.2.8 If MTO agrees to provide the Facilities and Infrastructure sharing, it shall provide to the Licensee a quotation giving information on costs and estimated timescales for implementation. The quotation shall remain valid for two (2) weeks.

H.2.9 If the Licensee agrees with the quotation the Licensee shall place an order in a format specified from time to time in the Provisioning Manual which shall include the orders for Facilities and Infrastructure sharing. If the Licensee does not submit an order within the validity period of the quotation, MTO reserves the right to refuse the order and the Licensee shall submit a new Reservation Request.

H.2.10 MTO shall provide the Facilities and Infrastructure sharing within the specified timescale, which shall normally be completed within thirty (30) Working Days of the acknowledgement of the order.

H. 2.11 Upon the delivery by MTO and the acceptance by the Licensee of the use of the Facilities and Infrastructure sharing, including any extension to existing Infrastructure Facilities, the Parties shall confirm such delivery and acceptance by signing an Acceptance Certificate which shall establish the Acceptance Date on which such delivery and acceptance is effected. The Acceptance Certificate shall be executed in two (2) counterparts and once the Parties have signed it, each Party shall receive one counterpart.

H.2.12 MTO Facilities and Infrastructure Sharing Service may be reserved up to 1 (one) year in advance provided the request for reservation is reasonable, the facilities are available and the relevant reservation forms have been completed and charges were paid to MTO. For the avoidance of doubt, the prices of reservation are equal to the prices of actual usage of the service.

H.2.13 The Licensee's responsibilities for the infrastructure sharing site include the followings

H.2.13.1 The Licensee shall not make any changes by himself or through third party to MTO facilities and Infrastructure Sharing without a prior written approval from MTO. MTO shall respond to the modification request within (10) working days of receipt of a request.

H.2.13.2 The Licensee shall bear all the costs of the changes whenever approved by MTO.

H.2.13.3 The Licensee shall make changes, if approved, under the supervision of MTO.

H.2.14 The Licensee shall bear the costs of any damages that may occur to MTO's facilities during installing, operating, maintaining the Licensee's equipment or during changes made to MTO facilities by the Licensee or on behalf of him, the correction should be supervised and approved by MTO. Should the Licensee not correct the damages as stated above within one month from the notification, MTO proceeds with the reasonable works necessary to correct the damages and charge the Licensee the full cost incurred.

H.2.15 MTO has the right to make changes in its facilities without the need for permission from the Licensee unless these changes affect the operation of the Licensee's equipment or modify the contracted space made available by MTO to the Licensee as per the present Service. Should these changes affect the Service as purchased by the Licensee from MTO, then MTO has to make 6 (six) months prior written notice to the affected Licensee to find an acceptable and reasonable solution depending on the case, MTO will offer — upon availability — an alternative solution(s) and/or bear the charges related to such change upon justification from the Licensee.

H.2.16 MTO is not responsible for any damages that may occur to the Licensee's equipment due to Force Majeure as defined in MTO's RIO.

H.2.17 MTO shall provide minimum of 6 (six) months advance warning, in the event of circumstances beyond the control of MTO in writing to the Licensee in the following circumstances.

H.2.17.1 Decision to close or remove the Facilities/Infrastructure where physical Facility and Infrastructure Sharing Service is in use.

H.2.17.2 Maintenance works of the real estate requesting temporary movement of the physical and Infrastructure Service is in use.

H.2.17.3 Redevelopment or civil works affecting the physical facility in use for the Service or immediately adjacent spaces which might reasonably be expected to affect the provision of the Infrastructure Sharing Service.

H.2.18 Disputes that arise between the Licensee and MTO shall be dealt with in accordance with MTO's RIO's Dispute Resolution and Arbitration.

H.2.19 MTO will not be liable to pay any compensation for the Licensee in case of any damages to the Licensee's cable in shared ducts unless such damages are proven to be caused by MTO intervention, and in this case MTO shall compensate the Licensee for the damages occurred to the Licensee cable.

H3. Service Characteristics

H3.1 The collocation facilities which may be available subject to the provisions of this Service Schedule and availability are floor space in shared room for a standard 60 by 90 by 200 centimeter cabinet.

H3.2 For all supplied facilities listed at H3.1 above, the following features may be available to the Licensee:

H3.2.1 24 hours per day, 7 days per week access (escorted), to the collocation facility for the Licensee for the purposes of installing, operating, maintaining the collocated equipment owned by the Licensee; (conditional on 5 working day prior notice)

H3.2.2 Provisioning of security measures for Licensee equipment similar to those provided for MTO equipment;

H3.2.3 Power supply, including provision for alternative temporary power supply;

H3.2.4 Power points for small power devices, such as test equipment;

H3.2.5 Climate and environmental control equipment similar to that deployed by MTO for the operation of the telecommunications equipment;

H3.2.6 Earth points for equipment;

H3.3 Additional facilities may include power, starting minimum five (5) Amperes and in increments of one (1) Ampere;

H4. Faults & Changes

H4.1 In the case of a fault occurring at any facility supplied by and under the control of MTO, MTO shall commence to resolve the fault within 8 (eight) working hours of a trouble-ticket being raised by the affected Licensee with MTO. The Licensee shall bear the costs of resolving the fault unless it can be shown by the Licensee that the responsibility for the fault lies with MTO.

which might reasonably be expected to affect the provision of the collocation facilities.

H5. Charging Structure

The rates charged by MTO for the running costs of collocation and infrastructure sharing services shall be as required by Interconnection Instructions, at the time of drafting this document; as far as is practicable, cost based. Leases for the collocation space within buildings shall reflect local market value.

H6. Charges

The Licensee shall pay MTO a charge calculated in accordance with the rates as stipulated in MTO Interconnection Price List mentioned in Exhibit (T) for items mentioned in it, and the Licensee shall pay MTO the charge mentioned in MTO special offers to the Licensee in cases of MTO submitting a specific offer to the Licensee for its specific requirement.

Annex I - Service Level Offer Provided by MTO for Wholesale Mobile Voice Termination

I1. Introduction

In this part the target service level, with relevant quality of service information, will be defined.

I2. Objective

I2.1 This document sets out the service levels to which MTO commits to with regard to the provision and maintenance of Voice Termination Service under the terms and conditions of this Reference Offer.

I2.2 Targets are set for a number of specific service level attributes, including:

- Port Delivery Lead Time (DLT)
- Time To Repair (TTR)
- Port Availability

I2.3 All reasonable efforts shall always be made to comply with the terms of the service level attributes mentioned above, any delay or degradation of service resulting from planned engineering work or joint testing during the agreed upon scheduled time of Operation shall result in the non-application of all or part of the undertakings contained in this service level offer.

I3. Fault report

I3.1 All faults shall be reported to the Point of Contact defined below:

Customer Care Unit: Tel: + 962 xxxxxxxx; Fax: +962 E-Mail: xxxxxxxxxxxx

I3.2 The response time needed from Customer Care to inform the other operators that the fault is accepted and a fault ticket number will be provided, as follows:

- By call: 30 minutes during working hours and one hour outside working hours
- By e-mail: 1 hour during working hours and 2 hour outside working hours

I4. MTO Voice Termination Service:

I4.1 Subject to the provisions of this service schedule, MTO shall convey the traffic handed over to it from the licensee network at an interconnect node for termination within MTO network.

I4.2 The MTO Traffic Termination service shall be limited to the traffic handed over to MTO number ranges allocated to MTO by the TRC as per the Numbering Plan.

I.5 Port Delivery Lead Time (P-DLT}

MTO is committed to deliver the E1 port within the lead time outlined below and to pay the relevant penalties for being late in delivering the requested ports to connect the licensee. The Delivery Lead Time (DLT) will be three weeks from the date of receiving a valid order from Other Licenced Operator (OLO), conditioned that the requested quantity shall not exceed the forecasted number of ports provided at beginning of the year by OLO.

I6. Applicable penalties

Delay Ranges of Port	Penalties (in percentages of the installation fee per port paid by operator)
4 weeks <delivered DLT < 6 weeks	25 %
6 weeks <delivered DLT < 8 weeks	50 %
8 weeks <delivered DLT 5< 12 weeks	75 %
12 weeks < delivered DLT	100 %

I7. Port availability

The availability of ports offered by MTO will be as follows:

Availability %	Credit days
-----------------------	--------------------

Availability ≥ 99.9	0
99.0 ≤ Availability < 99.9	2
98.0 ≤ Availability < 99.0	4
95.0 ≤ Availability < 98.0	6
90 ≤ Availability < 95.0	8
Availability < 90	90

The availability is measured over three months' period. Any planned engineering work or testing activity with the licensee does not count towards availability. In addition to that MTO has right to block the link in case the type of traffic received including fraud or any type affecting MTO network or any other operator connected with MTO.

18. Fault Repair

The following fault repair times apply:

Type of fault	Time of notification* 6	Target Response Time	Target Fault Repair Time**
Service affecting fault	During office hours	Within (1) hour of receipt of notification	Within 8 hours of receipt of Fault Report,

	Outside office hours	Within 2 hours of receipt of notification	Within 8 hours of start of working day following receipt of Fault Report
Non-service affecting fault	During office hours	Within 2 hours of receipt of notification	Within 48 hours of receipt of Fault Report

	Outside office hours	Within 3 hours of receipt of notification	Within 48 hours of start of working day following receipt of Fault Report
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* Office hours: 08:00 AM - 17:00 PM Sunday to Thursday (excluding public holidays)

** Response time is included in the fault repair time.

19. Applicable penalties

In the event of failure to solve the fault within the target repair time, MTO shall credit the Licensee with the service rental for the days till the resolution of the fault, up to a maximum 30 (thirty) days rental.