



# Zain Saudi Arabia

Reference Offer (RO)

*Draft version for consultation purposes*

January - 2022

## Table of Contents

1- Scope of services .....	2
2- Services description .....	4
3- Framework .....	7
4- Commercials and Billing .....	17
5- Locations of the Points of Interconnection.....	19
6- Technical Standards & Testing Procedures.....	19
7- Network and Traffic Management.....	21
8- Maintenance Procedures and Quality of Service.....	22
9- Terms and conditions.....	23
10- Forecasting.....	25
11- Quality of service measures.....	27
12- Operations & Maintenance.....	31
13- Limitation of Liability.....	42
14- Staff Safety and Network Protection.....	42
15- Escalation Procedure.....	42
16- Templates.....	43

## 1. Scope of Services

### 1.1 Introduction:

Zain has been designated by CITC as a dominant operator in wholesale mobile termination market.

This Reference Offer (RO) defines the standards interconnection terms and conditions which Zain shall apply for interconnection with other service providers. The services covered by this RO are:

- Terminating access service.
- Interconnection link service.
- Transit service.
- Special Services Offered to Operators.

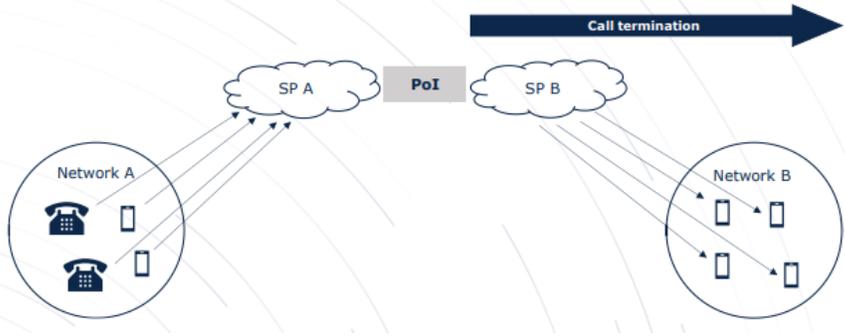
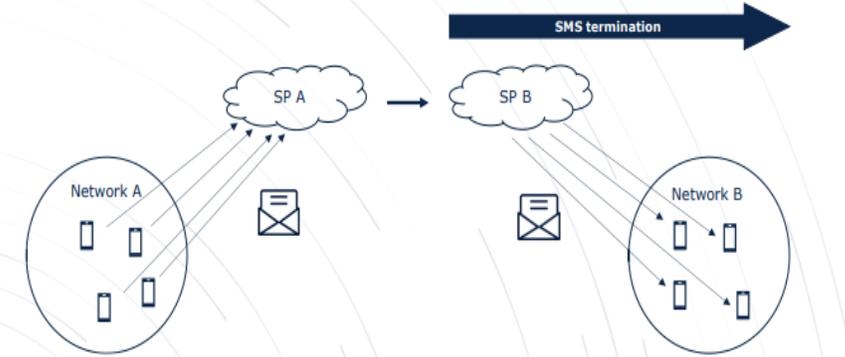
No operator shall be responsible for the content of calls passed through his own or an interconnected operator's network. Laws and regulations regarding confidentiality and access by legal authorities to calls on the operator's and Zain's network will apply.

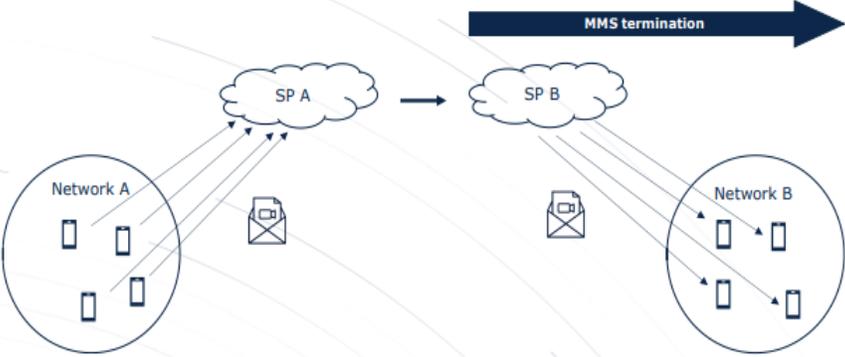
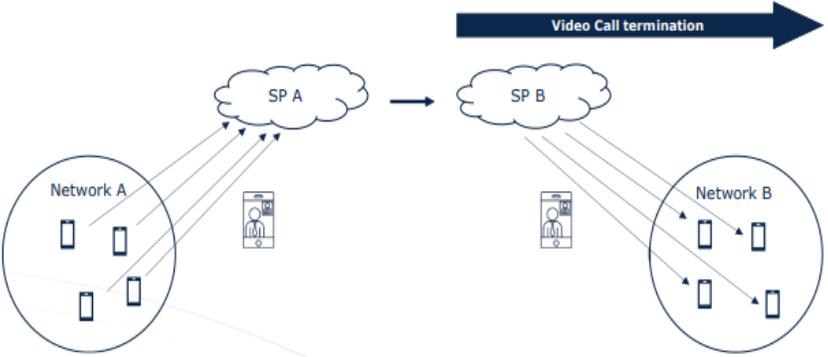
### 1.2 Definitions:

- Reference Offer (RO): A document prepared by the dominant service provider which defines and provide details of a set of standard terms and conditions for interconnection and access to physical facilities services with other service provider.
- CITC: The Communications and Information Technology Commission.
- Service Provider: Any person licensed by CITC to (1) provide telecommunication services to the public, and (2) operate a network used by that person or another person to provide telecommunication services to the public, or both.
- Issue Date: The date of issue of the invoice.
- Call: A transmission path through Telecommunication Systems for the sending of signals.
- Call Conveyance: A reference to conveyance of a call by a party means the establishment by that party of a transmission path through that party's network and the conveyance by that party in accordance with the Interconnection Agreement of a signal (if any) over such transmission path.
- Party/Parties/Other party/Other licensed operator (OLO)/operators: Service providers as defined above.
- CLI : Calling Line Identification as defined by the ITU-T
- Calling Line Identification Presentation (CLIP): Supplementary service provided for in ITU-T Recommendation I.251.3.
- Calling Line Identification Restriction (CLIR): Supplementary service provided for in ITU-T Recommendation I.251.4.
- Interconnection: The physical and logical linking of Telecommunications Networks used by different Parties in order to allow the users of one Party's Network to communicate with users of another Party's Network, or to access the facilities and/or services of another Party.

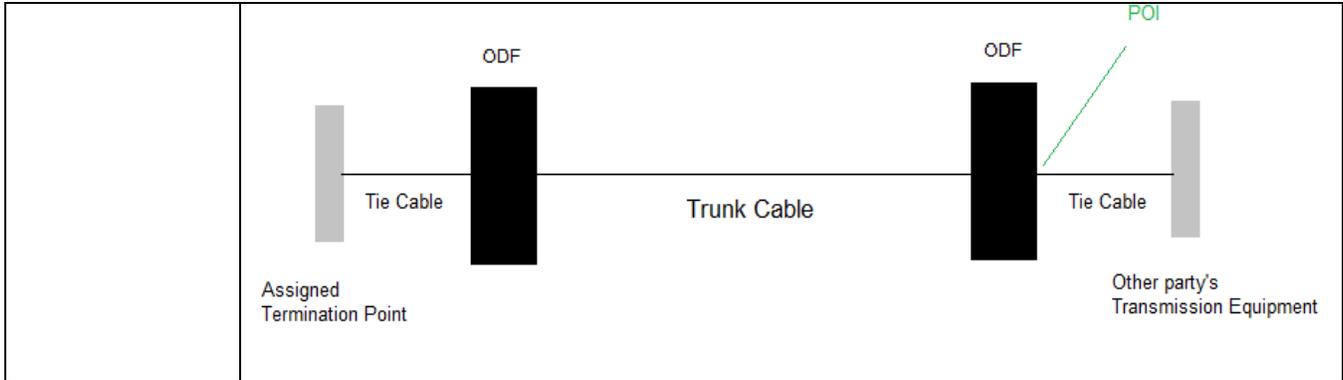
- Interconnection Regulations: Roles, regulations, rights and obligations being set by CITC for the interconnection of telecommunication networks.
- Interconnect Agreement: An agreement based on this RO and entered into between Zain and another party for the purposes of Interconnection..
- Interconnection Link: A link based on this RO and established between Zain and other licensed operators for the purposes of interconnection.
- Interconnection Service: Telecommunications Services provided in accordance with as interconnection agreement.
- Zain Interconnect Node: The node/network element where the other parties shall be connected for the purpose of interconnection service.
- National Number Plan: The numbering plan prepared by the Commission to specify the scheme of numbers used to access various telecommunications services.
- Operator: Any legal or natural person exploiting telecommunications networks and/or providing telecommunications services in Saudi Arabia.
- Point of Interconnection (POI): The physical or virtual point on the Interconnection Link where the telecommunications network of Zain and the Operator's System are interconnected. The POI is the boundary between Zain and the Operator domains of responsibility.
- System: All equipment and software which, an operator uses to provide his telecommunications services.
- SLA: Service Level Agreement.
- SMS: Short Message Service.
- MMS: Multimedia Message Service.
- DB: Database.
- KSA: Kingdom of Saudi Arabia.
- STM-1: Synchronous Transport Module level-1.
- STM-4: Synchronous Transport Module level-4.
- MVNO: Mobile Virtual Network Operator.
- QoS: Quality of Service.
- Unsuccessful Calls: Those calls that have not passed across a POI and/or not received an answer signal returned by the other Party's network.
- Joint Working Committee (JWC): a group of representatives assigned by each party.
- Calendar Year: Means the whole 12 months from the beginning of January until the end of December.

## 2. Services description

Interconnection Service	Definition
<p>Wholesale Mobile Call Termination Service</p>	<p>A voice call, originated in KSA or a foreign call transiting through the other party's network and handed over to Zain's network, initially switched by Zain's Exchanges, and passed to a Zain Local Exchange (LE) to be delivered to Zain network termination point within that LE or a parented remote unit (RU).</p>  <p>The diagram illustrates the call termination process. On the left, 'Network A' contains several mobile phone icons. Arrows from these phones point to a cloud labeled 'SP A'. A grey box labeled 'PoI' (Point of Interconnection) is positioned between 'SP A' and 'SP B'. A large blue arrow labeled 'Call termination' points from 'SP A' towards 'SP B'. From 'SP B', arrows point to a cloud labeled 'Network B', which also contains several mobile phone icons.</p>
<p>SMS Termination Service</p>	<p>SMS sent to mobile terminals or other devices belonging to Zain's customer or a hosted MVNO and originated from mobile terminals or other devices belonging to other party's customer.</p>  <p>The diagram illustrates the SMS termination process. On the left, 'Network A' contains several mobile phone icons. Arrows from these phones point to a cloud labeled 'SP A'. An envelope icon representing an SMS is shown between 'SP A' and 'SP B'. A blue arrow labeled 'SMS termination' points from 'SP A' towards 'SP B'. From 'SP B', arrows point to a cloud labeled 'Network B', which also contains several mobile phone icons.</p>

<p>MMS Termination Service</p>	<p>MMS sent to mobile terminals or other devices belonging to Zain’s customer or a hosted MVNO and originated from mobile terminals or other devices belonging to other party’s customer.</p> 
<p>Wholesale Video Call Termination Service</p>	<p>A video Call, originated in KSA, handed over from other party’s network to Zain network at an Interconnect Gateway Mobile Exchange (ICGMSC), and then routed through Zain network to be delivered to Zain network termination point.</p> 
<p>Calls to Directory Enquiry Service</p>	<p>A call dialed by a 3 digit number, handed over from the other party’s network to Zain network, routed to Zain call center and answered by Zain operators with access to Zain directory system. Zain will provide listed telephone numbers only of named subscribers within KSA from the DB.</p>
<p>Customer Sited Interconnect Link Service</p>	<p>A service where Zain provides fixed transmission capacity over which voice, SMS, MMS and mobile video calling traffic between its network and the other party’s network flows. Each end of interconnect link is terminated on the network of a different licensee. The Customer Sited Interconnection Link Service is a facility for the delivery of traffic between their Networks at a structured 155Mbit/s (STM-1). The POI is located at the digital distribution frame within the other party’s premises.</p>

<p>In Span Interconnect Link Service</p>	<p>The In Span Interconnection Link Service is a service where Zain provides fixed transmission capacity over which voice, SMS, MMS or mobile video calling traffic between its network and the other party's network flows. Each end of the Interconnect Link is terminated on the network of a different licensee. The In Span Interconnection Link Service is a facility jointly established by Zain and the OLO for the delivery of traffic between their networks at structured 155Mbit/s (STM-1).</p> <p>The Point of Interconnection is located at the footway box installed within the curtilage of the building containing the OLO switch connection.</p>
<p>Equipment Collocation for Interconnection Services</p>	<p>A service provided by Zain wherever it is technically, operationally and commercially feasible, offering equipment space within Zain operational building which has been designated as a service node and suitable for hosting transmission equipment owned by the other parties for the sole purpose of interconnection between Zain and other parties network or access to Zain network if required to connect to Zain offered services.</p>



### 3. Framework:

- 3.1 RO which provides a set of standard technical and commercial terms and conditions for interconnection and forms the basis for entering into an Interconnection Agreement between Zain and any requesting Other party (OLO).
- 3.2 The provisions of this RO comply with the requirements of the regulatory framework as set out in the Telecommunications Act, the Bylaw, the Ordinance of the Communications Commission and the Interconnection regulations.
- 3.3 Zain hereby offers to interconnect the Zain Network with the Network of a requesting other party and to supply Mobile and Fixed Call termination services on the terms and conditions as provided for in this RO. Zain undertakes to act in good faith in the negotiation of a Network Plan with any Other party.
- 3.4 The Other party, by requesting Interconnection with Zain, warrants that it has in full force and effect the authorizations stipulated in the Interconnection Regulations to enter into an agreement arising from an acceptance of this RO.
- 3.5 Zain and the requesting other party recognize the necessity of effective Interconnection of their Networks in the provision of quality Telecommunications Services to their respective customers. Zain and the Other party believe that a fundamental principle of Interconnection is to enable customers of Zain and the Other party to communicate effectively with customers of the other Network and that accordingly:
  - 3.5.1 Zain and the other party shall exchange information in order to make Interconnection effective, without prejudice to commercial confidentiality.
  - 3.5.2 Zain and the other party shall at all times, as far as is reasonably possible, act so as to facilitate the speedy and effective operation of interconnection services set out under this RO, to the benefit of customers and to mutual advantage of Zain and the other party.
  - 3.5.3 Zain and the other party will cooperate to achieve feature transparency of supplementary services between interconnected networks as far as is reasonably possible.
  - 3.5.4 Zain and the other party shall provide to each other, upon request, details of active number ranges and shall be obliged to advise each other from time to time of the opening of any new number ranges in accordance with the National Numbering Plan approved by CITC.
  - 3.5.5 Zain and the other party shall work jointly to ensure the overall quality of the calls which are made via an interconnection point and their own networks. Zain and the other party shall adopt general principles

regarding standards, techniques and methods in order to guarantee the quality of telecommunication networks.

3.5.6 In implementing services and facilities under this RO, Zain and the other party shall endeavor to minimize the attendant costs, if this does not result in additional cost attribution to other products and services provided by either Zain or the other party and is consistent with agreed quality standards.

3.5.7 Zain and the other party shall treat each other in a fair and professional manner.

### 3.6 Network Interconnection

3.6.1. Interconnection between the Zain Network and the other party's Network at each Point of Interconnection shall be achieved through two or more Interconnect Links. Each Interconnect Link shall create a connection between one of the Zain Interconnect Nodes and one of the other party's service nodes. The Other party may interconnect at any of these Interconnect Nodes subject to that Interconnect Link being bilaterally agreed in the Network Plan.

3.6.2. On requesting Interconnection from Zain, the other party shall:

3.6.2.1 Provide a detailed statement of its technical requirements for Interconnection Services in respect of this RO. This statement of requirements must be sufficiently detailed for Zain to design a solution for the other party's Interconnection requirements.

3.6.2.2 If the statement of requirements is considered by Zain to be insufficient to set out a comprehensive technical solution, Zain shall notify the other party within five (5) Business 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 other party's statement of requirements.

3.6.2.3 If the statement of requirements is sufficient to enable Zain to design and document a comprehensive technical solution for the other party's interconnection requirements, Zain shall dispatch a documented solution to the other party within one (1) Calendar Month of receipt of the satisfactory statement of requirements.

3.6.2.4 Zain and the other party shall negotiate in good faith with a view to reaching agreement on a comprehensive Network Plan within one (1) Calendar Month of Zain's notification of the Zain proposed technical solution being received by the other party, unless otherwise agreed between Zain and the other party in writing.

3.6.2.5 Once the technical solution is agreed between Zain and the other party, the solution shall become known as the Network Plan and shall be included in the proposed Interconnection Agreement between Zain and the other party.

3.6.2.6 Interconnect -Links shall be provided using either Customer Sited Interconnection or, if appropriate, In Span Interconnection.

3.6.2.7 The actual Point of Interconnect (POI) shall be where the Zain Network connects with the other party's Network and represents a demarcation point for regulatory purposes. In the case of the Customer Sited Interconnection, it shall be a physical point, for example, a digital distribution frame, where the connection can be disconnected in order to conduct testing. In the case of In-Span Interconnection, it shall be the point within the footway box where the duct from the other party's premises containing the relevant fiber optical cable is jointed to the footway box wall.

3.6.2.8 Zain and the other party shall be responsible for providing sufficient capacity at the POI to meet the agreed forecast traffic contained in the Network Plan,

3.6.2.9 Each Licensed Operator shall be responsible for the operation and maintenance of the transmission equipment on their respective sides of the POI.

3.6.2.10 Separate Interconnect Links may be provided to carry the traffic of each Licensed Operator. The cost of both installation and ongoing maintenance of each Interconnect Link shall be borne in full by the Licensed Operator owning (sending) the traffic on that Interconnect Link. Initially Uni-directional Links will be utilized. Bi-directional Links may also be utilized when this represents the optimal method of handling the traffic consistent with sound engineering practices. In the latter instance of Bi-directional Links, costs for installation and ongoing maintenance shall be shared.

3.6.2.11 The Quality-of-Service Measures provide details on the timescales for delivery of services and the in-service quality standards.

3.7 The provided Interconnection Services offered by Zain will be defined in this RO.

3.8 Charging for Interconnection Services.

3.8.1. The charging structure for each Interconnection service is described in this RO.

3.8.2. Zain may review and, subject to the approval of CITC, amend the price list from time to time. Such amended price list will be published and notified to the other party, following approval by CITC, within twenty-eight (28) Calendar Days' notice of effecting any new charges for Interconnection services.

3.8.3. Charges shall not be payable under this RO by either Licensee to the other for unsuccessful calls. Successful calls shall be defined as those calls that have passed across a POI and received an answer signal returned by the other Party's network.

3.8.4. Price changes for services contained within this RO will become effective subsequent to their approval by CITC.

3.8.4.1 For wholesale services specified for a fixed contract period, revised prices are only applicable to new contracts or orders placed after the effective date of such approved changes and prior to the expiry of the current contract period but shall not have retroactive effect with respect to orders already placed.

3.8.4.2 For the usage based bilateral services, prices will be reviewed on an annual basis.

3.9 Numbering, Each Licensed Operator shall use number ranges allocated to them in accordance with the National Numbering Plan as administered by CITC.

3.10 Quality of Service Measures

3.10.1. Zain shall provide Interconnect Services to other party at the same quality of service level as for similar services provided wholly within Zain's Network.

3.10.2. Zain and the other party shall use their reasonable endeavors to meet the target Unsuccessful Call Termination Ratio. For specific routes, the target Unsuccessful Call Termination Ratio can be varied from the standard and agreed between Zain and the other party.

3.10.3. Both Zain and the other party shall use their best endeavors to meet the targets for all elements of the Calls carried on their Networks.

3.11 Network Design and Planning

3.11.1. Network design and planning of the Interconnection shall be in accordance with the Network Plan as agreed between Zain and the other party. The Network Plan shall relate to the next two (2) years and be prepared jointly by both Parties.

3.11.2. The Network Plan shall be reviewed and updated by Zain and the other party on a frequency to be agreed between both Zain and the other party by the Technical Review Committee. In any case, the maximum period between reviews shall not exceed one (1) year and the revised plan agreed no later than the end of June of each year.

3.11.3. In addition to the production of the Network Plan, Zain and the other party shall revise the forecasts for Interconnect Links as per the procedure.

3.11.4. The forecasts provided by Zain and the other party represent the good faith expectations of each Party of the capacity requirements on the Interconnect Links.

3.11.5. Both Zain and the other party reserve the right to recover from the other Party unavoidable costs incurred as a result of the shortfall in capacity ordered.

### 3.12 New Services

3.12.1. Zain or the other party may, at any time, request from the other an agreement to interconnect their respective Networks for the provision of any service or facility which the other provides either to itself or under an Interconnection Agreement with other party. Such requests shall be clearly marked as a request for a new service.

3.12.2. Following a request pursuant to Clause 3.12.1 Zain or the other party shall treat the other Party in a fair and professional manner, offer the other the service or facility on its then current standard tariff terms and conditions. Zain and the Other party shall always, as far as is reasonably possible, act so as to facilitate the speedy and effective provisioning and operation of the new service requested, to the benefit of customers and to the mutual advantage of both Zain and the party.

3.12.3. If the Other party requests from Zain an offer for Interconnection for the provision of a service which Zain is obligated to provide under the RO, Zain and the Other party shall enter into good faith negotiations for the provision of such service.

3.12.4. The requesting operator shall provide the requested operator with a written statement of its requirements at the time of its request. Receipt of such requests shall be acknowledged not later than five (5) Business Days after receipt by exchange of confirmed emails or by personal delivery to the HQ of each Operator.

3.12.5. Not later than one 15 Calendar days, unless otherwise agreed by Zain and the other party, after receipt of a statement of requirements, the requested operator shall notify the requesting operator whether the statement of requirements is sufficient. If not, the requested operator shall request any further clarification it may reasonably require within two (2) weeks after notifying to the requesting operator that the provided statement of requirements is insufficient.

3.12.6. Subject to the requesting other party's statement of requirements being sufficient, the requested Licensed Operator shall confirm in writing whether it accepts an obligation to enter into an agreement not later than thirty (30) Calendar Days after the receipt of the statement of requirements.

3.12.7. If the requested Licensed Operator does accept an obligation to do so, Zain and the other party shall endeavor to agree the technical, operational and commercial aspects of Interconnection within ninety Calendar Days (90) after acceptance of the statement of requirements.

3.12.8. If the requested Licensed Operator does not accept an obligation, a Dispute may be deemed to have arisen between the Licensed Operators, and the Other party may invoke the provisions, Resolution of

Disputes, hereof. Negotiations to agree terms for interconnection may nevertheless continue pending resolution of the Dispute.

3.12.9. If the request is for a new Interconnection service, the agreed technical, operational and commercial terms shall be incorporated into a revision to this RO and submitted to CITC for approval. Such terms shall be included in the Interconnection Agreement as appropriate.

3.12.10. Any withdrawal of an Interconnection service shall be notified to CITC for approval and to the other party two (2) Calendar Months in advance of the proposed date of withdrawal.

### 3.13 Management of Interconnection

3.13.1. Interconnection will be managed through a Technical Review Committee. This committee shall be comprised of both commercial and technical representatives from Zain and the other party.

3.13.2. All planning activities will be coordinated through this Technical Review Committee.

3.13.3. The commercial representatives will be responsible for the management and administration of all commercial aspects of Interconnection including but not limited to ordering processes and reconciliation of billing data in accordance with 3.14 Measurement of Traffic Volume.

### 3.14 Measurements of Traffic Volumes

3.14.1. The responsibility for traffic volume measurements shall reside with the billing Licensee responsible for that Interconnection service.

3.14.2. Both Zain and the other party shall ensure that it records measurements of traffic volumes in sufficient detail to meet its obligations mentioned in this RO.

### 3.15 Billing and Payment

3.15.1. Zain and the other party shall bill and reimburse the other in accordance with the procedures outlined in this RO.

3.15.2. The charges in this RO are exclusive of Government Royalty, Taxes and License Fees unless such charges are stated to be inclusive of Government Royalty, Taxes and License Fees. Government Royalty, Taxes and License Fees shall be charged in addition where appropriate on Zain invoices resulting from an acceptance of this RO.

3.15.3. Invoices are due and payable in Saudi Riyals. Invoices will be dated as of the date of issue of the invoice (the "Issue Date") and are payable on or before the "Due Date" which is thirty (30) Calendar Days from the Issue Date.

3.15.4. Zain shall provide to the other party, invoices of all amounts due to Zain.

### 3.16 Confidentiality and Disclosure.

3.16.1 Zain and the other party 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 CITC, and as provided for under the laws of the Kingdom.

3.16.2 Information provided by one Licensed Operator to the other for the purposes of Interconnection shall only be used by relevant staff within the receiving Licensed Operator's company for the purposes of Interconnection and shall not be made generally available within the receiving Licensed Operator's company.

3.16.3 Subject to the confidentiality obligations of Zain or the Other party to a third party, either Zain or the Other party may request, and the other shall provide, information on protocols in use by that third party which are required for Interconnection, conveyance of Calls or the provision of services specified

in this RO if such other third party has relevant information and the provision of such information is necessary as a consequence of the absence or incompleteness of international standards.

3.16.4 Zain or the other party 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 Zain or the Other party, as appropriate, has taken all reasonable steps to secure the consent of such third party.

3.16.5 The Disclosing Party 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.

3.16.6 The Receiving Party shall indemnify the Disclosing Party and keep it indemnified against all liabilities, claims, demands, damages, costs and expenses arising as a consequence of any failure by the Receiving Party to comply with its confidentiality obligations as per this Clause 3.16.

3.16.7 Nothing in this RO shall require a Licensed Operator 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 KSA legislation or regulation.

### 3.17 Resolution of Disputes.

3.17.1 In the event of any Dispute arising between the Licensed Operators relating to or arising out of an Interconnection Agreement, including the implementation, execution, interpretation, rectification, termination or cancellation of the Interconnection Agreement, the Licensed Operators shall declare a Dispute for resolution under this Clause 3.17

3.17.2. The Dispute resolution procedure in this Clause 3.17 has three levels:

(a) Level 1: Resolution at an operational level

(b) Level 2: Referral of the Dispute to senior management level of the Licensed Operators

(c) Level 3: Referral to CITC.

3.17.3 For resolution at Level 1, the Licensed Operators shall meet within ten (10) Business Days of receipt of written notice of the Dispute by one Licensed Operator to the other (or such longer time as mutually agreed by the Parties) to negotiate in good faith in an effort to settle such Dispute.

3.17.4 Subject to clause 3.17.5, provided that the period during which the Parties have been negotiating in good faith is not less than thirty (30) Calendar Days and in circumstances where the Parties have met, negotiated in good faith and failed to resolve the Dispute then either Party may refer the matter to senior management (Level 2) for resolution.

3.17.5 The period of thirty (30) Calendar Days given in Clause 3.17.4 herein is in addition to the time taken for the Parties to meet as set out in 3.17.1.

3.17.6 Subject to Clause 3.17.4, provided that the period during which the Parties have been negotiating in good faith is not less than twenty (20) Calendar Days and in circumstances where the Parties have met, negotiated in good faith and failed to resolve the Dispute then either Party may refer the matter to the CITC (Level 3) for resolution in accordance with the laws of the Kingdom.

3.17.7 The period of twenty (20) Calendar Days given in Clause 3.17.6 herein is in addition to the time taken for the Parties to meet as set out in 3.17.1 and 3.17.4.

3.17.8 A request for resolution by CITC should be made in writing to: His Excellency the Governor of Communications and Information Technology, Communications and Information Technology Commission.

3.17.9 Each Licensed Operator will continue to fulfil its lawful obligations pending any Dispute resolution and shall keep their networks connected for the provision and conveyance of calls between their respective networks.

### 3.18 Breach, Suspension and Termination

3.18.1 If one Licensed Operator's Network seriously and adversely affects the normal operation of the other party's Network, or is a threat to any person's safety, the affected Licensed Operator shall immediately inform the affecting Licensed Operator. The affecting Licensed Operator shall take immediate action to isolate and resolve the problem and if normal operation is not restored in a reasonable period of time or if the matter is extreme, the affected Licensed Operator may suspend, to the extent necessary, such of its obligations under this RO, and for such period as it may consider reasonable to ensure the normal operation of its Telecommunications System or to reduce the threat to safety. Such suspension(s) shall be notified in writing to both the other party and CITC and may continue unless CITC instruct otherwise or the problem is resolved.

3.18.2 If either Licensed Operator is in material breach of any provisions of the Interconnection Agreement consequent upon this RO (including failure to pay an undisputed sum due hereunder), the Licensed Operator may serve a written notice (the "breach notice") on the Licensed Operator in breach, copied to CITC, specifying the breach and requiring it to be remedied as well as stating the consequences of failure to remedy including potential suspension or termination.

3.18.3 If the Licensed Operator in breach fails to remedy the breach within twenty-eight (28) Calendar Days of receipt of the breach notice, the other affected Licensed Operator may, until such breach is remedied, action the consequences stated in the breach notice including suspend performance of such of its obligations made under the Interconnection Agreement pursuant to this RO as is reasonable in the circumstances. Such suspension shall be notified in writing to CITC.

3.18.4 If the Licensed Operator in breach fails to remedy the breach within twenty-eight (28) Calendar Days of receipt of the breach notice, the affected Licensed Operator may terminate the Interconnection Agreement with the Licensed Operator in breach on three (3) Calendar Months' written notice to both the Licensed Operator in breach as well as CITC. If the Licensed Operator in breach remedies the breach within such three (3) Calendar Months' notice period, the Interconnection Agreement shall not be terminated as a result of such notice. Such termination shall be notified in writing to CITC and may be implemented unless CITC instruct otherwise.

3.18.5 The Interconnection Agreement may be terminated by either Licensed Operator by written notice forthwith to both the Licensed Operator in breach as well as CITC (or on the termination of such other period as such notice may specify) if any one of the following occurs:

- a) The Other party formally commences bankruptcy proceedings.
- b) Bankruptcy proceedings are formally commenced against the other party.
- c) The Other party ceases to carry on business.

3.18.6. Either Licensed Operator may terminate the Interconnection Agreement for justifiable reason by giving at any time to the other not less than twenty-four (24) Calendar Months written notice.

3.18.7 After a notice has been issued pursuant to Clause 3.18.6 a Licensed Operator may request the other party to carry on good faith negotiations with a view to entering into a new agreement.

3.18.8 Following a request pursuant to Clause 3.18.6, if, on termination of the Interconnection Agreement, either Licensed Operator would be obliged under its license to enter into a new Interconnection Agreement with the Other party then Zain and the Other party shall carry on good faith negotiations with a view to entering into a new Interconnection Agreement to take effect on the expiry of the terminating Interconnection Agreement.

3.18.9 Upon expiry of the Interconnection Agreement each Licensed Operator shall take such steps and provide such facilities as are necessary for recovery by the Licensed Operator of equipment (if any) supplied by that Licensed Operator. Each Licensed Operator shall use reasonable endeavors to recover equipment made available by it.

3.18.10 If thirty (30) Calendar Days after the expiry of the Interconnection Agreement, a Licensed Operator fails to recover all equipment because of the acts or omissions of the other party (or a third party appearing to have control of a site where such equipment is situated) without reasonable cause, the first Licensed Operator may demand reasonable compensation from the other party which shall be paid by the other party within thirty (30) Calendar Days of the date of the demand.

3.18.11 Without prejudice to a Licensed Operator's rights upon expiry of the Interconnection Agreement, a Licensed Operator shall refund to the other a fair and equitable proportion of those periodic sums (if any) paid under the Interconnection Agreement for a period extending beyond the date of such termination or expiration.

3.18.12 Expiry of the Interconnection Agreement shall not be deemed a waiver or a breach of any term or condition thereof and shall be without prejudice to a Licensed Operator's rights, liabilities or obligations that have accrued prior to such expiry.

3.19 Intellectual Property Rights, Except as expressly otherwise provided in the Interconnection Agreement, intellectual property rights shall remain the property of the Licensed Operator creating or owning the same and nothing in this RO or the Interconnection Agreement shall be deemed to confer any right or title whatsoever or license of the intellectual property rights of one Licensed Operator to the other, and nothing in the Interconnection Agreement shall be deemed to restrict the rights of any Licensed Operator to own, use, enjoy, license, assign or transfer its own intellectual property rights.

### 3.20 Review

3.20.1 Zain and / or the other party may seek to amend the Interconnection Agreement pursuant to this RO by serving on the other a review notice if:

3.20.1.1 Either Licensed Operator's license is materially modified (whether by amendment or replacement).

3.20.1.2 Zain's obligations under the Interconnection Regulation are materially altered.

3.20.1.3 A material change occurs in the law or regulations governing telecommunications in the Kingdom.

3.20.1.4 The Interconnection Agreement makes express provision for a review or the Licensed Operators agree in writing that there shall be a review.

3.20.1.5 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 the Interconnection Agreement.

3.20.1.6 The rights and obligations under the Interconnection Agreement are assigned or transferred by the other party.

3.20.1.7 There is a general review pursuant to Clause 3.20.3 hereof.

3.20.2 A review notice shall set out in reasonable detail the issues to be discussed between Zain and the other party.

3.20.3 A Licensed Operator may initiate a general review of the Interconnection Agreement by serving a review notice during the period of three (3) Calendar Months commencing on 1st July in any year.

3.20.4 A review shall take place following changes either mandated or approved by CITC to this RO. Any such changes shall be effective based on the timeframes as set out in the revised Offer.

3.20.5 On service of a review notice, Zain and the other party shall forthwith negotiate in good faith the matters to be resolved with a view to agreeing the relevant amendments to the Interconnection Agreement.

3.20.6 For the avoidance of doubt, Zain and the other party agree that notwithstanding service of a review notice, the Interconnection Agreement shall remain in full force and effect.

3.20.7 If Zain and the other party fail to reach agreement on the subject matter, Resolution of Disputes, hereof shall apply.

3.20.8 Zain and the other party shall enter into an agreement to modify or replace the Interconnection Agreement in accordance with what is agreed between the Licensed Operators.

3.20.9 Zain shall periodically update this RO to take account of any appropriate changes to the Interconnection Agreements, the Interconnection Regulation published by CITC or the Interconnection services offered by Zain under this RO. Such amendments will be submitted to CITC for approval no less than 30 Calendar Days prior to the effective date of any such changes.

### 3.21 Force Majeure

3.21.1 Neither Zain nor the Other party shall be liable for any breach of the Interconnection Agreement caused by force majeure, including but not limited to insurrection or civil disorder, war or military operations, national or local emergency, acts or omissions of government, highway authority or other competent authority, act of any Government or other Authority, compliance with law, regulations or demands of any Government or governmental agency, industrial disputes of any kind (whether or not involving either Zain's or the Other party's employees, provided that in circumstances where the industrial dispute involves its own employees, the Party relying on the force majeure has taken all reasonable actions to prevent such industrial disputes from arising), fire, lightning, explosion, flood, earthquake, subsidence, weather of exceptional severity, acts or omissions of persons for whom neither Licensed Operator is responsible or any other cause whether similar or dissimilar outside its reasonable control.

3.21.2 The Licensed Operator initially affected by a force majeure shall as soon as is reasonably practicable notify the other of the force majeure. The Licensed Operator initially affected by the force majeure will subsequently provide notification of the estimated extent and duration of its inability to perform or delay in performing its obligations ("force majeure notification").

3.21.3 Upon cessation of the service effects of the force majeure the Licensed Operator initially affected by a force majeure shall promptly notify the other of such cessation.

3.21.4 If as a result of a force majeure, the Licensed Operator is prevented from performing its obligations under this RO, such Licensed Operator shall, subject to the provisions of Clause 3.21.6 perform those of its remaining obligations not affected by a force majeure. In performing those of its obligations not affected by a force majeure, the Licensed Operator initially affected by a 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 party.

3.21.5 To the extent that a Licensed Operator is prevented as a result of a force majeure from providing all the services or facilities to be provided under this RO, the other party 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.

3.21.6. Following a force majeure notification and if the effects of such force majeure continue for:

3.21.6.1 A continuous period of not more than six (6) Calendar Months from the date of the force majeure notification (whether or not notice of cessation has been given pursuant to Clause 3.21.6.3) any obligation outstanding shall be fulfilled by the Licensed Operator initially affected by the force majeure as soon as reasonably possible after the effects of the force majeure have ended, save to the extent that such fulfilment is no longer possible or is not required by the other party.

3.21.6.2 A continuous period of six (6) Calendar Months or more from the date of the force majeure notification (and notice of cessation has not been given pursuant to Clause 3.21.3), the Licensed Operator receiving the force majeure notification shall be entitled (but not obliged) to terminate the Interconnection Agreement by giving not less than thirty (30) Business Days written notice to the other party, provided that such notice shall be deemed not to have been given if notice of cessation is received by the Licensed Operator receiving the force majeure notification prior to the expiry of the thirty (30) Business Days' notice. If the Interconnection Agreement is not terminated in accordance with the provisions of this Clause 3.21.6.1, any obligations outstanding shall be fulfilled by the Licensed Operator initially affected by the force majeure as soon as reasonably possible after the effects of the force majeure have ended, save to the extent that such fulfilment is no longer possible or is not required by the other party.

3.22 Assignment of Rights and Obligations, without prejudice to the Interconnection Agreement pursuant to this RO no rights, benefits or obligations made under the Interconnection Agreement may be assigned or transferred, in whole or in part, by a Licensed Operator without the prior written consent of the other party, such consent not to be unreasonably withheld.

3.23 Notices,

3.23.1 A notice shall be duly served if:

- a) Delivered by hand, and exchanged for a signed receipt, at the time of actual delivery.
- b) Sent by facsimile, upon its receipt being confirmed in the first instance by phone between nominated persons and followed in writing.
- c) Sent by recorded delivery service, two (2) Business Days after the day of dispatch.

3.23.2 Except if otherwise specifically provided all notices and other communications relating to an acceptance of this RO shall be in writing and shall be sent to the contact points and addresses as set out in the Interconnection Agreement.

- 3.24 Waiver, The waiver of any breach of, or failure to enforce, any term or condition resulting from an acceptance of this RO shall not be construed as a waiver of any other term or condition of this RO. No waiver shall be valid unless it is in writing and signed on behalf of the Licensed Operator making the waiver.
- 3.25 Severability, the invalidity, unenforceability of any provision in the Interconnection Agreement shall not affect the validity or enforceability of the remaining provisions.
- 3.26 Amendments, amendments and supplements to this RO, shall be issued with not less than twenty-eight (28) Calendar Days' notice subject to the approval of CITC.
- 3.27 Governing Law, the interpretation, validity and performance of this RO shall be governed in all respects by the laws of the Kingdom and Zain and the other parties submit to the exclusive jurisdiction of the Courts of the Kingdom.

## 4. Commercials and Billing

### 4.1 Service Charges (VAT Exclusive):

- 4.1.1 Mobile Termination Rate\* (MTR): Regulated by CITC (0.022 SAR/Min).
- 4.1.2 Short Message Service (SMS) Termination Service\*: 0.075 SAR/SMS.
- 4.1.3 Multimedia messaging service (MMS) termination service\*: 0.15 SAR/MMS.
- 4.1.4 Video call termination service\*: 0.6 SAR/Min.
- 4.1.5 Calls to directory enquiry services: 0.045 SAR/Min.

#### 4.1.6 Interconnection Link Service:

##### 4.1.6.1.1 Customer Sited Interconnect Link Service (non-IP)

Set up charges\*:

Capacity	SAR per circuit
STM-1	Bespoke
STM-4	Bespoke

Annual Rental\*:

Capacity	Band	Annual Rental (SAR)
STM1 TX Link	Local	Bespoke
STM4 TX Link	Local	Bespoke
STM1 Port	Local	Bespoke
STM4 Port	Local	Bespoke

##### 4.1.6.1.2 Customer Sited Interconnect Link Service (IP)

This service is subject to availability with a Bespoke pricing.

##### 4.1.6.2 In Span Interconnect Link Service

Survey Charges\*:

Survey	SAR
Survey/Feasibility Study	Bespoke

Set up Charges\*:

Footway Box Construction	SAR
Footway Box	Bespoke

IS Interconnect Link	SAR
STM- 1	Bespoke

Intra Building Link	SAR
STM- 1	Bespoke

Annual Rental\*:

IS Interconnect Link	SAR per year
STM- 1	Bespoke

Intra Building Link	SAR per year
STM- 1	Bespoke

*\*These prices are considered as price ceilings.*

#### 4.1.7 Collocation

Zain shall offer Collocation on the grounds of availability at Zain sites. Collocation shall be provided based on first-come, first served principle according to the date of receipt of the written order subject to the following;

- If the available space at a specific site does not fit the first-come operator and there are no alternative solutions, then priority will be given to the next –come operator Licensee.
- Urgency of requirement, and upon availability, can be prioritized and justified only after CITC approval. In such cases, if the next-come operator's request is more urgent than first-come operator, then priority for Collocation service will be given to the next-come operator.
- Collocation shall be provided if technically feasible and reasonable and will not adversely affect the operational integrity of the existing equipment at the Collocation under the control of Zain.
- Collocation is provided for a minimum of 1 (one) year lease. The operator may cancel the Collocation upon written notice at least 60 days prior to the date of termination.
- Operator should not make any changes by himself or through third party to Zain facilities without a prior written approval from Zain. Zain shall response to the modification request within 10 working days of receipt of a request. The operator – if the request approved by Zain – will bear all the costs of the changes.
- The Rate charged by Zain for the running costs of collocation will reflect market values.
- Specific charges vary from service location to another and shall be available on request from the operator as part of the feasibility study.
- Cancellation of requests for Collocation will incur charges that reflect the reasonable costs necessarily incurred by Zain up to the point of formal notification of a cancellation request.
- The operators requesting the service need to reach through their fiber to the point of interconnection (POI) specified by Zain and connect with the Zain optical fiber distribution point (ODF).

#### 4.2 Billing and Payment Procedure:-

4.2.1 All invoices shall be due and payable in Saudi Riyal.

4.2.2 All payment shall be made within thirty calendar (30) days of the invoice date.

4.2.3 Invoices shall be initially sent by email and then a paper copy delivered by a courier.

4.2.4 If either party overpays an invoice, and the amount of overpayment is jointly agreed by both parties, the party issuing the invoice shall send a credit note for the agreed amount to the overpaying party within five (5) working days of the joint agreement that an overpayment has occurred.

4.2.5 If there are invoicing/billing discrepancies and the amount of the discrepancy is less than the tolerance level of three percent (3 %), then the billed party shall pay the billing party's invoice in full on the due date.

4.2.6 If the discrepancy is greater than the tolerance level detailed in Clause 4.2.5 above, a request for recalculation shall be sent within ten (10) days of the invoice date. The Joint Working Committee (JWC) shall meet within one (1) week reckoned from the date of request to resolve the issue.

4.2.7 If no error is found by the JWC, payment shall be due within (30) days of the invoice date or ten (10) working days reckoned from the report of the JWC, whichever is longer. If an error is found, the invoice shall be recalculated and resent and payment is due within (10) working days upon receipt of the new invoice.

4.2.8 If the issue has not been resolved by the due date of the invoice, the remaining undisputed invoice amount shall be payable as normal.

4.2.9 The time to reach a consensus on any invoice in dispute is sixty (60) days upon receipt of the request for recalculation.

## 5. Locations of the Points of Interconnection

A list of locations offered for interconnection including maps to enable other Service parties to make efficient choices on the selection of Pols for Interconnection Services. The details of these points offered for interconnection are to be maintained as an annex to this RO. The list and the related information will be updated on a regular basis.

## 6. Technical Standards & Testing Procedures

### 6.1 Technical Standards:

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

- Any legal requirements
- ETSI standards
- ITU-T Recommendations
- National standards
- Any other international standards
- The SIP protocol is used as defined in RFC 3261 (<http://rfc.net/rfc3261.html>) to convey and terminate voice calls. The interconnection between both infrastructures is done through the Internet unless otherwise agreed upon between parties.

### 6.2 Testing Principles:

Interconnection to Zain's network shall be carried out and provision of Services under this Interconnection Agreement provided only after the satisfactory completion of the Interconnect Testing and after Zain is

satisfied with the Interconnect testing, testing shall be carried out in accordance with Zain's testing manuals. The operator shall perform interconnect testing in accordance with this schedule or as otherwise mutually agreed with.

#### 6.2.1 Timeline for testing:

6.2.1.1 The Operator shall book the required test date and the testing duration at least seven (7) business days period to the requested testing date. The Operator shall submit the request to Zain for interconnect testing.

6.2.1.2 The requested testing duration is subject to mutual agreement by the Parties.

6.2.1.3 Any request for extension to the testing duration beyond the agreed time frame by the Operator is subject to mutual agreement by both Parties. The Operator shall make its request for extension at least two (2) business days period to the end of the testing duration.

6.2.1.4 Zain shall not be liable to the Operator for any delay in completing all the test items unless such delay is directly attributable to the neglect or fault of Zain.

6.2.1.5 The following tests are in addition to any interoperability tests which may be required to ensure the basic interoperability of the generic software used by each party.

6.2.1.6 The following tests are performed each time a new Point Of Interconnection is established or additional capacity added to an existing route.

#### 6.2.2 Tests on Digital 2 Mbps circuits:

Below are described all tests on digital 2 Mbps circuits that are:

6.2.2.1 Error Performance measurements will be performed end to end for E1 circuits provided over transmission systems in order to comply with ITU-T Recommendations: G.826.

6.2.2.2 End-to-end error performance objectives:

6.2.2.3 Rate 2.048Mbps

6.2.2.4 Bits/block 2048

6.2.2.5 Error Second Ratio - ESR 0.04

6.2.2.6 Severely Error Second Ratio- SESR 0.002

6.2.2.7 Background Block Error Ratio- BBER  $2 \times 10^{-4}$  (Note 1)

6.2.2.8 The allocation for the error performance objectives to the national portion of the end-to-end path will be done according to G.826 Recommendation.

6.2.2.9 The duration of the above test is at least 24 consecutive hours.

6.2.2.10: Error performance measurements accordingly to G.826 ITU-T.

#### 6.2.3 Call Completion Tests:

##### 6.2.3.1 Signaling SS7:

- All tests will be performed with test calls from Zain's network to the Operator's network, and vice versa, according to the services provided by the two networks.
- Tests will be performed in respect of all types of digital exchanges which are operated by Zain and which are available for the establishment of interconnection and in respect of all exchanges and equipment of the Operator which will be used for the purposes of interconnection.

##### 6.2.3.2: Call Routing:

The correct data routing configuration of digital exchanges is checked by performing relevant test calls, as it described below:

- Calls originating in the Operator network and terminating in Zain's network for single transit, double transit, through all covered regions and the respective interconnection exchanges.
- Calls originating in the Operator network, which transit through Zain's network and terminate in a third party network.

Calls from each party to the other, in order to check the validity of the calling number at the terminating point according to National Numbering Plan.

#### 6.2.3.3 Charging Tests:

In order to ensure accurate charging of the services provided, according to the agreements the following tests will be performed:

- The error-free charging registration in files (Volume of calls and total duration in min.) per service for all charging periods (peak and off-peak time) will be checked.
- The comparison of charging files between both parties in order to ensure the matching of record.
- The accuracy of the information provided by each party regarding the total volume of interconnects traffic during the billing period which is exchanged periodically between the parties in order to settle payments.

#### 6.2.3.4 Confidence Testing:

- The confidence tests shall start after the common technical test for interconnection has been completed. During one month starting from the time interconnection becomes operational the parties shall monitor the signaling traffic and the services traffic in order to see that the standards are being met. The Operator shall be responsible for testing and monitoring the performance of its own Network. Testing of the Interconnection Link and Signaling Links shall be kept to a minimum and shall be avoided during the busy hour periods. No testing shall be carried out before Zain has agreed to the conduct of such tests, including any routine tests.
- For handling problems, which can only be done through a series of test Calls, both Parties shall agree upon the details of the testing required.
- For SS7 the parties shall verify the messages are sent only for the agreed destinations and for the agreed services and meet the resilience criteria.

## 7. Network and Traffic Management

### 7.1 Network Traffic Management:

- a. Network Traffic Management (NTM) is defined as the real-time surveillance and control of Traffic flow on a telecommunications Network. Its aims are to maximize the effective use of available capacity for call completion and to maintain an acceptable Grade and Quality of Service for Users of all Parties. Designated Party shall establish Network Management Centers (NMCs) to monitor and control the flow and routing of Traffic to maximize the effective use of available capacity.
- b. Each Party should provide 24-hour contacts for dealing with NTM queries and problems and should recognize the necessity for co-operation to achieve efficient NTM relating to the Traffic routes linking their respective Networks.
- c. Each Party shall notify other Party in a timely manner when major problems occur which are likely to affect interconnected Traffic. Each Party should communicate as necessary to achieve a coordinated NTM effort.

#### 7.2 Traffic and QoS Measurement:

Interconnected Parties shall both be responsible for measuring and monitoring the Traffic and Quality of Service KPIs on the interconnect links between their Networks, and shall be able to do so at all times in 'real-time' or as close to it as possible.

#### 7.3 Routing Management:

- a. Each Party shall manage the routing of outgoing Traffic up to the Point of Interconnection and incoming Traffic from the Point of Interconnection to their destination.
- b. Each Party shall make every effort to ensure that Traffic is routed to the other Party' Networks, using overflows to alternative routing paths if necessary and already agreed.

## 8. Maintenance Procedures and Quality of Service

8.1 Faults related to the Operator's own Leased Circuits or Network is the responsibility of the Operator. However, Zain shall be responsible for the faults of Zain's Network or Leased Circuits that it provides to the Operator.

8.2 Each Party shall maintain its own fault reporting center which shall be responsible for handling the faults between Networks, coordinating the fault clearance (including escalations) within its own Network and subsequently reporting the clearance of the fault to the other Party.

8.3 Each Party shall establish twenty-four (24) hour contact points for fault reporting at its nominated fault reporting center.

8.4 The Party encountering the fault shall notify the other Party through Email, phone Call, or other means providing real-time communication between the Parties. This should take place immediately after the fault becoming known to the Party.

8.5 Direct communications links shall be established between the Parties' interconnect fault reporting centers. The communication links shall facilitate the effective exchange of information and progress reports.

8.6 For any planned engineering works within the Operator Network, which will result in momentary outage of service of the Local Leased Circuit, SS7 Signaling Links, or Gateway Exchange, the Operator shall inform ten (10) Business Days to the other Party.

- 8.7 Each party shall keep the other party informed at all times about planned interruptions, upgrades, and any other planned situation in its network which will affect the exchange of Interconnection traffic between the parties. This will enable the parties to take the necessary action to minimize the impact of such situations on its customers.
- 8.8 Each party is responsible for the operations and maintenance of its network. The parties undertake to cooperate and to take any action which is necessary for the purposes of operation and maintenance of circuits and network equipment related to interconnection in accordance with ITU and ETSI recommendations.
- 8.9 Each Party undertakes that the quality of the services that it provides to the other Party pursuant to this Agreement shall comply with the quality standards stated in applicable recommendations in Saudi Arabia, ETSI and the ITU.
- 8.10 Each Party shall provide to the other Party the same level of quality of service provided to its own customers in its own network.
- 8.11 If the quality of service provided by one of the Parties fails to meet the quality of service standards, the other Party may request in writing that action is taken to restore the service quality. If after a reasonable period of time, as agreed by the Parties, no improvement has been made, the other Party may register a dispute according to the agreed procedures.
- 8.12 If any new service is requested by a Party which fails to meet the quality of service standards, and such a failure has been assessed by the CITC, the other Party may take reasonable steps to advise its customers that such a service is not meeting the existing legal standards of quality of service.

## **9. Terms and conditions**

- 9.1 Zain hereby offers to interconnect the Zain Network with the Network of a requesting other party and to supply services and facilities on the terms and conditions as provided for in this RO. Zain undertakes to act in good faith in the negotiation of a Network Plan with any other party.
- 9.2 Separate Interconnect Links may be provided to carry the traffic of each Licensed Operator. The cost of both installation and ongoing maintenance of each Interconnect Link shall be borne in full by the Licensed Operator owning (sending) the traffic on that Interconnect Link. Initially Uni-directional Links will be utilized. Bi-directional Links may also be utilized when this represents the optimal method of handling the traffic consistent with sound engineering practices. In the latter instance of Bi-directional Links, costs for installation and ongoing maintenance shall be shared.
- 9.3 Zain or the other party shall, whilst observing the provisions, treating the other Party in a fair and professional manner, offer the other the service or facility on its then current standard tariff terms and conditions. Zain and the Other party shall always, as far as is reasonably possible, act so as to facilitate the speedy and effective provisioning and operation of the new service requested, to the benefit of customers and to the mutual advantage of both Zain and the Other party.
- 9.4 The Other party may, at any time, request Zain to cease supplying the Wholesale Fixed Call Termination Service to Zain geographic number ranges and Zain shall cease supplying the Wholesale Fixed Call Termination Service to Zain geographic number ranges as soon as practicable or at such later time as specified by the Other party in accordance with the terms and conditions specified in this RO.

- 9.5 The Other party may, at any time, request Zain to cease supplying the Call Termination Service to non-geographic number ranges and Zain shall cease supplying the Call Termination Service as soon as practicable or at such later time as specified by the Other party in accordance with the terms and conditions specified in this RO.
- 9.6 The Other party may, at any time, request Zain to cease supplying the CS Interconnect Link Service and Zain shall cease supplying the CS Interconnect Link Service as soon as practicable or at such later time as specified by the Other party in accordance with the terms and conditions specified in this RO.
- 9.7 The Other party may, at any time, request Zain to cease supplying the IS Interconnect Link Service and Zain shall cease supplying the In Span Interconnect Link Service as soon as practicable or at such later time as specified by the Other party in accordance with the terms and conditions specified in this RO.
- 9.8 The Other party may, at any time, request Zain to cease supplying the Wholesale National Leased Line Service and Zain shall cease supplying the Wholesale National Leased Line Service as soon as practicable or at such later time as specified by the Other party in accordance with the terms and conditions specified in this RO.
- 9.9 The Other party may, at any time, request Zain to cease supplying the Wholesale International Leased Line Service and Zain shall cease supplying the Wholesale International Leased Line Service as soon as practicable or at such time as specified by the Other party in accordance with the terms and conditions specified in this RO.
- 9.10 The Other party may, at any time, request Zain to cease supplying the Wholesale Outgoing International Voice Call Service and Zain shall cease supplying the Wholesale Outgoing International Voice Call Service as soon as practicable or at such later time as specified by the Other party in accordance with the terms and conditions specified in this RO.
- 9.11 The Other party may, at any time, request Zain to cease supplying the SMS Termination Service and Zain shall cease supplying the SMS Termination Service as soon as practicable or at such later time as specified by the Other party in accordance with the terms and conditions specified in this RO.
- 9.12 The Other party may, at any time, request Zain to cease supplying the Wholesale Transit Interconnection Service and Zain shall cease supplying the Wholesale Transit Interconnection Service as soon as practicable or at such later time as specified by the Other party in accordance with the terms and conditions specified in this RO.
- 9.13 The Other party may, at any time, request Zain to cease supplying the Wholesale Fixed Intelligent Call Origination Service and Zain shall cease supplying the Wholesale Fixed Intelligent Call Origination Service as soon as practicable or at such later time as specified by the Other party in accordance with the terms and conditions specified in this RO.
- 9.14 The Other party may, at any time, request Zain to cease supplying the Wholesale Mobile Intelligent Call Origination Service and Zain shall cease supplying the Wholesale Mobile Intelligent Call Origination Service as soon as practicable or at such later time as specified by the Other party in accordance with the terms and conditions specified in this RO.
- 9.15 The Other party may, at any time, request Zain to cease supplying the MMS Termination Service and Zain shall cease supplying the MMS Termination Service as soon as practicable or at such later time as specified by the Other party in accordance with the terms and conditions.
- 9.16 The Other party may, at any time, request Zain to cease supplying the Wholesale Video Call Termination Service and Zain shall cease supplying the Wholesale Video Call Termination Services as soon as practicable

or at such later time as specified by the Other party in accordance with the terms and conditions specified in this RO.

9.17 The Parties shall agree in advance all necessary technical and commercial requirements for the provision of the Wholesale National Roaming Service within Universal Service areas, The Requesting OLO and Zain shall enter into a separate a USF Service Areas Roaming Agreement where in all the related technical, commercial and the other contractual terms and conditions which will be mutually discussed and agreed to will be included.

## 10. Forecasting

10.1 Forecasting of Interconnection Traffic, Interconnect Links and SS7 Signaling Link Requirements

10.1.1 Forecast Requirements

10.1.1.1 Zain requires other parties using Zain's Interconnection services to provide forecasts between the other party's and Zain's Networks, in good faith and as accurately as is reasonably possible, of the following:

- Traffic route capacity for routes from the other party to Zain
- Interconnect Link capacity for links carrying the above-mentioned traffic routes
- Signaling capacity requirements.

10.1.1.2 The following high level forecasting steps will be adopted:

- Other party submits initial two years forecast
- Joint Technical Review Committee agree forecast
- Forecast becomes Advanced Capacity Order (ACO)
- ACO sets commitment levels for Calendar Months one (1) to twelve (12)
- Other party places firm orders against ACO
- Firm orders monitored against ACO
- Reforecast submitted every six (6) Calendar Months
- ACO extended by further six (6) Calendar Months

10.1.1.3 In the event that the other party does not provide forecasts or is believed not to provide forecasts in good faith, Zain has the right to initiate a Dispute under Clause 19 of the Primary Document and amend the forecast in the interim until the Dispute is resolved.

10.1.1.4 Route forecasts shall be given in terms of the locations of the A and B ends for at least six (6) Calendar Months prior to any firm order. The Other party shall update these forecasts every six (6) Calendar Months.

10.1.1.5 The Other party shall provide to Zain forecasts for Interconnect Link capacity in terms of STM-1/STM-4 circuits required every six (6) Calendar Months on 1 December and 1 June of each year. This shall be monthly forecasts for months one (1) to twelve (12) and quarterly forecasts for months thirteen (13) to twenty-four (24).

10.1.1.6 The Other party shall provide to Zain forecasts for network traffic in terms of busy hour erlangs required every six (6) Calendar Months on 1 December and 1 June of each year, this shall be monthly forecasts for months one (1) to twelve (12) and quarterly forecasts for months thirteen (13) to twenty-four (24). The Other party shall update these forecasts every six (6) Calendar Months.

10.1.1.7 The Other party shall provide to Zain forecasts for any special or predicted network traffic variations (e.g. unusual or peak demands) as early as possible, but not less than six (6) Calendar Months before any such occurrence, if it is expected that traffic will deviate from normal patterns.

10.1.1.8 If no capacity forecasting form update is received, the forecast shall remain unchanged from that previously submitted until the following period.

#### 10.1.2 Advanced Capacity Order (ACO) Forecasting Restrictions

10.1.2.1 The Other party shall update the Advanced Capacity Orders (ACO) on 1 December and 1 June of each year by submitting the ACO forms to the Zain commercial account manager.

10.1.2.2 Increases in capacity orders for the next forecast period shall be subject to availability of equipment and resources. Zain can offer no guarantees that such increases in ACOs can be satisfied. Zain however accepts the capacity orders increase up to 25% deviation from the provided forecast.

10.1.2.3 Decreases in capacity orders for the next forecast period shall be accepted subject to reasonable charges being levied by Zain on the other party for any costs reasonably and necessarily incurred as a result of planning for and potentially purchasing relevant equipment that cannot be reasonably used elsewhere in the Zain network. However, Zain accepts the capacity orders decrease up to 25% without levying any additional charges as penalty.

#### 10.1.3 Reactive Capacity Planning

10.1.3.1 The Other party and Zain shall agree to measure traffic on all Interconnect Links to identify congestion and maintain the target Unsuccessful Call Termination Ratio for voice service Interconnection.

10.1.3.2 In the event that the traffic, capacity and route forecasting processes have failed to maintain the target Unsuccessful Call Termination Ratio, Zain and the Other party 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 Unsuccessful Call Termination Ratio. Either Licensee shall have the right to call a meeting of the Joint Technical Review Committee to progress resolution of congestions.

#### 10.1.4 Planning of New Points of Interconnection

10.1.4.1 Prior to making Interconnection available on new or previously not interconnected switching facilities, Zain or the other party, 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.

### 10.2 Forecasting of Wholesale leased line services

#### 10.2.1 Forecast Requirements

10.2.1.1 Zain requires other parties using Zain's Wholesale Leased Line Services to provide forecasts of the number and capacity of Services between the other party's locations.

10.2.1.2 Wholesale Leased Line Services forecasts shall be given in terms of the locations of the A and B ends for at least six (6) Calendar Months prior to any firm order. The Other party shall update these forecasts every six (6) Calendar Months.

- 10.3 Forecasting of International Outgoing Voice Minutes Services
  - 10.3.1 Forecast requirements
    - 10.3.1.1 Zain requires other parties using Zain's Wholesale Outgoing International Voice Call Services to provide forecasts of the number of minutes by destination for destinations expected to have over 5% or more of the total of all outgoing international voice minutes and an aggregated forecast for all other destinations.
    - 10.3.1.2 The Other party shall provide to Zain forecasts for Wholesale Outgoing International Voice Call Services minutes required every six (6) Calendar Months on 1 December and 1 June of each year this shall be monthly forecasts for months one (1) to twelve (12) and quarterly forecasts for months thirteen (13) to twenty four (24). The Other party shall update these forecasts every six (6) Calendar Months.
- 10.4 Forecast Agreement and Approval
  - 10.4.1 The Joint Technical Review Committee shall review all forecasts at a meeting to be convened within ten (10) Business Days of receipt of the forecast by Zain. The forecasts shall be approved unless it is considered that they are unreasonable or impractical to implement in the time requested. If approved, authorized representatives of both Parties will sign the forecasts to signify their commitment to the forecasts.
  - 10.4.2 If the Parties fail to agree the forecasts or part thereof then the Parties will use all reasonable endeavors to reach agreement within five (5) Business Days. If agreement cannot be reached, then either Party may notify the other of a Dispute. Only those portions of the forecasts that have not been agreed shall be in Dispute.
- 10.5 Forecast Review
  - 10.5.1 The Technical Review Joint Committee will review the other party forecasts on a monthly basis. If the ordering profile significantly deviates from the agreed forecast tolerances Zain reserves the right to request a reforecast.
- 10.6 Reciprocity of Forecasting
  - 10.6.1 Demand forecasts for Interconnection services, and the adherence to the procedures stated in this RO are required to be followed by both Parties. In the case of services which are not provided on a reciprocal basis then the forecasting arrangements are only applicable to the Party requesting the service.

## **11. Quality of service measures**

- 11.1 Service Level Requirements
  - 11.1.1 Zain will provide Call Conveyance Interconnection services to the other party at the same level of quality as for its own customers.
  - 11.1.2 Both Zain and the other party will be responsible for regularly measuring and monitoring the traffic and quality of service on the Interconnect Links between their networks and will be able to do so in real time or as close to real time as is possible. Zain and the other party will work jointly to achieve this goal in accordance with general standards and methods specified by the ITU and the processes outlined below.

11.1.3 This RO sets out the target service levels by which the capacity and traffic characteristics of the Interconnection services provided by Zain to the other party will be measured and assessed. It also sets out the quality-of-service measures to which Zain commits for the provision and maintenance of Interconnection services under an Interconnection Agreement pursuant to this RO.

11.1.4 Targets are set for a number of specific service level attributes.

- Delivery Lead Times:
  - o Interconnect Links
  - o Wholesale Leased Lines
- Performance
  - o Interconnect Links
  - o Wholesale Leased Lines
  - o Network
- Fault repair time for Interconnect Links
  - o Service affecting faults
  - o Non-service affecting faults

11.1.5 The service level attributes listed in Clause 11.1.4 above will apply except in the circumstances defined in Force Majeure Clause. For the avoidance of doubt, Zain will make all reasonable efforts to comply with the terms of the service level attributes.

11.1.6 An unreasonable delay caused by the other party’s non-fulfilment of its obligations arising out of the Interconnection Agreement will result in the non-applicability of all or part of Zain’s undertakings contained in this RO. Such obligations include, but are not limited to, access to sites for survey or provision of information required for service provisioning or fault resolution.

11.1.7 Zain will provide traffic and quality of service reports upon request from CITC, in accordance with its license obligations.

## 11.2 Delivery Lead Times

11.2.1 Zain’s commitment to deliver within the lead times outlined below, will only apply to services ordered in accordance with the procedure for ordering and provisioning and within the forecast provided by the other party under the procedure set out in Forecasting.

### Delivery of Interconnect Links

11.2.2 The table below details the delivery lead times applicable to Customer Sited (CS) Interconnect Links ordered within the agreed forecast by the other party, starting from the end of the order negotiating period:

Order Type	Delivery Lead Time
New CS Interconnect Link to a new Point of Interconnect (POI)	14 Weeks
Additional CS Interconnect Link to an existing POI where capacity is available	4 Weeks

11.2.3 The delivery lead times as applicable to In Span Interconnect Links will be determined on a case by case basis.

**Delivery of Wholesale Leased Lines**

11.2.4 The table below details the delivery lead times applicable to Wholesale Leased Lines ordered within the agreed forecast by the Other party, starting from the end of the order negotiating period:

Order Type	Delivery Lead Time
New Wholesale Leased Lines where transmission equipment is available at both ends	4 Weeks
New Wholesale Leased Lines where transmission equipment is required at one or both ends but not involving civil engineering work	14 Weeks

11.3 Performance

**Availability of Interconnect Links**

11.3.1 Each Interconnect Link will have a target availability of 99.8% which is the amount of time over one quarter (that is to say three (3) Calendar Months in the Gregorian calendar) during which the link is fully functional and available for the conveyance of traffic.

11.3.2 A higher level of availability on individual Interconnection routes may be obtained if the other party and Zain agree to install additional Interconnection Link capacity and implement alternative routing.

**Availability of Wholesale Leased Lines**

11.3.3 Each Wholesale Leased Line will have a target availability of 99.0% which is the amount of time over one quarter (that is to say three (3) Calendar Months in the Gregorian calendar) during which the link is fully available.

**Overall Availability**

11.3.4 For the overall performance of the Interconnect Links and Wholesale Leased Lines the availability should meet the performance target of 99.9% on average yearly.

**Quality of Service for switching network**

11.3.5 Unsuccessful Call Termination Ratio measurements will be carried out in each of the relevant Zain exchanges as applicable in order to monitor the overall quality of service. The following Unsuccessful Call Termination Ratio parameters will be measured:

Total number of all attempts

Total number of Successful Calls (Calls set up successfully), which comprises:

- o Total number of answered Calls
- o Total number of Calls to busy subscribers
- o Total number of unanswered Calls

Total number of unsuccessful Call attempts which comprises:

- o Congestion due to non-availability of common resources
- o Technical faults in the network

On the basis of the measurements as set out in Clause 11.3.5, Zain will calculate the Unsuccessful Call Termination Ratio during the busy hour on any Interconnect Link. The Unsuccessful Call Termination Ratio is the percentage of unsuccessful Calls of the total Call attempts during the network busy hour. Interconnect Links will be dimensioned so that the Unsuccessful Call Termination Ratio for the network busy hour is less than two percent (2%), which constitutes the target Unsuccessful Call Termination Ratio for any route.

11.3.6 Zain and the other party will cooperate and take joint action to address any issue arising from the result of the above measurements. In particular, in the event of extended breach of the Unsuccessful Call Termination Ratio on a particular Interconnect link, Zain and the other party will consider alternative traffic routing away from the congested link or increasing capacity on the Interconnect Path.

11.3.7 If an agreement cannot be reached during the review of the Network Plan, either Zain or the other party will have the right to follow the Dispute resolution process.

11.4 Interconnect Link Fault Repair

11.4.1 Zain or the other party will report to the other Party any fault related to Interconnect Links.

11.4.2 In the event of the other party's failure to report a fault in accordance with the appropriate procedure, Zain will not be bound by the terms of this RO, including the target repair time and any applicable penalties.

11.4.3 Both Zain and the other party will co-operate in any investigation and follow up action required for the resolution of the fault.

11.5 Repair Times

11.5.1 Repair times are dependent on the nature of the fault (service affecting or non-service affecting).

11.5.2 When a fault has been reported and both Parties agree that the fault is service affecting, Zain will address service affecting faults as priority.

11.5.3 Zain will address reported faults within the timescales as detailed in the SLA table below:

Type of Fault	Target Repair Time for Interconnect Links
Service Affecting	95% within 12 hours of receipt of fault report
Non-Service Affecting	90% within 24 hours of receipt of fault report

11.6 Review and Update

11.6.1 The quality of service measures will be reviewed after consultation with the other parties, based on technical and operational capabilities and updated as appropriate.

11.7 SLA and Penalties

Service Availability	Penalty
>= 95%	NA

94% - 94.99%	1% of Monthly Recurring Charges Provided as a Credit
<94%	4% of Monthly Recurring Charges Provided as a Credit

## 12. Operations & Maintenance

### 12.1 Planning

#### 12.1 Provision of Network Information

12.1.1 Zain and the other party will cooperate in planning and implementing network capacity and Interconnection to ensure as far as possible that their respective Networks work together efficiently and effectively for carriage of interconnecting traffic. Such cooperation will include the mutual exchange of relevant capacity and network topology information to facilitate preparing for and implementing Interconnection in practice.

12.1.2 Each Party will provide the other Party with advance information about any planned introduction, decommissioning replacement or modification of or to any exchange (insofar as is relevant to the other Party's network or the operation thereof).

12.1.3 Each Party will provide the other Party with advance information about any proposed alterations to a network that would make it necessary to change the other Party's network in order to maintain the Interconnection between Zain and the other party.

12.1.4 Any changes should be notified as soon as the proposal becomes firm and, in any event, not less than seven (7) Calendar Months prior to the implementation of the alteration.

12.1.5 In case of any planned decommissioning work in either party's Network which will affect the interconnected traffic between the parties or require other party to modify its network, then each party shall duly provide advance information to the other party and in accordance with the Clause 12.1.4.

12.1.6 In such an event of the planned modification/ decommissioning work in either party's network, both the parties will accordingly discuss the issue in the Joint Technical & Review Committee sufficiently well in advance and identify as to how and to what extent , the Interconnection traffic between the parties will be affected with the planned network modification / decommissioning. Both parties shall also agree upon the necessary contingent measures to be taken by either side. The schedule and duration of such planned modification/decommissioning work proposed by the requesting Party shall be duly agreed upon by the other Party before commencement of such works.

12.1.7 The details of the works to be carried out by the requesting party shall be recorded and communicated to the other party well in advance. The Advice form shall also state the date, time and duration of such works, the impact to the conveyance of Calls between the Party's network, the necessary network management measures to be taken as well as any contingency plans & procedures to be adopted by either Party.

12.1.8 In case, the planned modification/decommission work involves outage of the Interconnected traffic for some period of time, then both the parties shall further discuss the traffic rerouting plans and agree on the contingent measures and traffic rerouting plans.

12.1.9 The requesting Party shall further notify the other Party when the work is complete by providing the “Advice of Planned Decommissioning Work Completion” which should be transmitted to the other Party without any delay.

## 12.2 Network Plan

12.2.1 The Network Plan will form part of the Interconnection Agreement between Zain and the other party respectively to provide and underwrite Interconnection capability.

12.2.2 The Network Plan will contain those elements of necessary and specific information required to achieve Interconnection between Zain and the other party. Such information includes but is not limited to:

- Capacity and traffic forecast for the other party
- Capacity orders
- Numbering plans for both Zain and the other party
- Contact points for both Zain and the other party
- Date of next review
- A diagram of all Points of Interconnection and routing for all Interconnect Paths
- Proposals for new Points of Interconnection
- Changes to call routing
- Circuit Identification Codes
- Notification and information relating to planned network upgrades
- Transmission plan (including principles for Tributary Allocation)
- Traffic routing plan
- Switch connections
- Numbering information
- Switch details
- Switch testing
- Link testing
- Network performance
- Resilience, diversity and security
- Call handling sequences
- Capacity profiles
- Operations and maintenance principles

12.2.3 As part of the planning of the initial and ongoing capacity each Party will provide the other, through the Joint Technical Review Committee, information on the availability (or otherwise) of sufficient transmission capacity in the core Network at any Zain or Other party building for establishing Interconnect and SS7 Signaling Links and Wholesale Leased Line Services.

12.2.4 The Network Plan will be agreed between Zain and the other party, at least on a rolling quarterly basis.

12.2.5 The Network Plan will address the forecasts for the following two years for the other party’s Interconnection requirements in terms of traffic and location and number of Interconnect Links,

according to the terms defined in Forecasting. The first of the 12-monthly forecasts will constitute a commitment by the other party to pay for and take up any incremental change in capacity.

### 12.3 Numbering

12.3.1 Prior to opening new numbering blocks on its network (including Mobile Station Roaming Numbers (MSRNs), either Party will notify the other in writing at least two (2) Calendar Months in advance of the activation of such numbers.

12.3.2 A Party will give not less than six (6) Calendar Months prior written notice to the other Party before making any change in its numbering structure, which may necessitate modifications to the other Party's network.

### 12.4 Changes to Call Routing

12.4.1 Changes to call routing will be detailed in the Network Plan.

### 12.5 Interconnection of New Switching Equipment

12.5.1 Procedures for establishing, relocating or removing a POI in Zain's network. Zain is obligated to provide other Service Providers with advance notice of at least 60 days of any expected changes and to seek to minimize any adverse effect of any expected changes on Interconnection Services provided.

12.5.2 Prior to making Interconnection available on new switching facilities, Zain or the Other party, whichever is the equipment owner, will 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 activation of the SS7 Point Code.

12.5.3 The delivery of Customer Sited Interconnect (CSI) or In Span Interconnect (ISI) links is subject to the commissioning of a physical transmission path to the other party's Node.

### 12.6 Ordering of New or Changed Interconnection Services

12.6.1 The Other party will submit a request for change(s) to existing interconnections such as alterations to network configuration and data management information by ordering. Such orders will be executed by Zain

12.6.2 The Other party will commit to charges for Interconnection changes

12.6.3 The Other party will endeavor to place orders for new Interconnect Links to allow sufficient lead time for Zain to implement them in time for the planned delivery and availability dates.

12.6.4 A request for Interconnection services will be placed by the other party. All the relevant sections of the order form must be completed for an order to be valid. The order form should be sent to the Zain commercial account manager by letter, fax or e-mail.

12.6.5 Requests for other services will be made by letter addressed to the Zain commercial account manager.

12.6.6 Upon receipt of the order, the Zain commercial account manager will review the form for validity. An order validation section of the order form will be sent to the other party within five (5) Business Days of an order, acknowledging it.

12.6.7 Following receipt of a request under Clause 12.6.1, Zain shall assess that request and notify the Other party within ten (10) Business Days that either:

a) The implementation of the request in respect of the requested Wholesale Leased Line Service Interconnect or SS7 Signaling

Link Service involves only network conditioning in Zain's Network, in which case the negotiation period shall be thirty (30) Business Days; or b) The implementation of the request in respect of the requested Wholesale Leased Line Service Interconnect or SS7 Signaling Link Service involves work in addition to or as alternative to network conditioning in Zain's Network, in which case the negotiation period shall be sixty (60) Business Days and additional charges may be payable.

12.6.8 The Parties shall forthwith negotiate in good faith the requirements, implementation charges and timetable for the use of the Wholesale Leased Line Service, Interconnect and SS7 Signaling Link Services provided by Zain in accordance with the Other party's request under Clause 12.6.4 for the negotiation period specified in Clause 12.6.7 (a) or (b), failing which either Party may commence the Dispute resolution procedure

12.6.9 Where the Parties have reached an agreement, in accordance with Clause 12.6.7 (a) or (b) above, Zain will commence implementation in accordance with the agreed timetable.

12.6.10 Nothing in this Clause 12.6 requires Zain to perform any changes in its Network or to commence the supply of Wholesale Leased Line Service, Interconnect or SS7 Signaling Link Services until the Parties have completed the change process for that Wholesale Leased Line Service, Interconnect or SS7 Signaling Link Service and all charges have been agreed to by the Other party.

12.6.11 The Other party may, at any time, request Zain to cease supplying the Wholesale Leased Line Service, Interconnect or SS7 Signaling Link Service and Zain shall cease supplying the Wholesale Leased Line Service, Interconnect or SS7 Signaling Link Service as soon as practicable or at such later time as specified by the Other party.

12.6.12 In case of rejection of an order in whole or in part, the commercial account manager will state the reason for rejection to the requesting other party. The Other party has the right to start a Dispute.

12.6.13 The Other party and CITC have the right to request a progress report within three (3) Business Days at any time following the notification of the delivery date.

## 12.7 Order Cancellation

12.7.1 Order cancellations must be notified to Zain by the other party.

12.7.2 Zain reserves the right to charge the other party for costs other than administrative costs incurred in processing orders up to the point of cancellation.

## 12.8 Provisioning

### 12.8.1 Lead Times for Delivery

12.8.1.1 Lead times for delivery vary according to the type of service and requirements.

### 12.8.2 Implementation

12.8.2.1 Zain will endeavor to complete the implementation of orders from the other party in accordance with the timetable given in the agreed Network Plan that is current at the date of ordering.

12.8.2.2 Zain will ensure that all new and changed network connections arising from fulfilling new orders will perform in a manner compliant with the Quality of Service measures before being made available for productive use by the other party. Zain and the other party shall perform the tests on the installed

connection according to Clause 12.8.2.3 and 12.8.2.4 below. In case of errors, the sources of errors will be traced and rectified accordingly.

12.8.2.3 When commissioning a Wholesale Leased Line, Interconnect or SS7 Signaling Link, Zain will perform qualification tests including but not limited to:

- Attenuation
- Loop resistance
- Insulation
- SNR (Signal to Noise Ratio)
- Impulse noise
- Return loss

12.8.2.4 Once the transmission path is installed, Zain will perform tests to bring the Wholesale Leased Line, Interconnect or SS7 Signaling Link into service, including but not limited to:

End-to-End test

Fiber tests

12.8.2.5 The following tests will be performed as appropriate on all Customer Sited Interconnect Links, including but not limited to:

- Loop test
- Bit Error Rate test
- MTP Test Q.781
- MTP Test Q.782
- ISUP Test Q.784
- Optical power tests
- Ring tests

12.8.2.6 Zain reserves the right to verify the System Qualifications Test (SQT) on the other party's equipment to be used for Interconnection with the Zain network. Zain generic specifications shall be used for this purpose.

12.8.2.7 Zain and the other party will test generate and verify all alarms with Zain and the other party's network operations centers (NOCs)

## 12.9 Service Handover

12.9.1 Once the requested service is implemented, the Zain commercial account manager will complete the service handover section on the order form, stating the handover date. The form will be sent to the other party together with a report detailing the results of testing.

12.9.2 The Other party will confirm receipt of delivery and acceptance of the service by signing and returning the order form within two (2) Business Days of receipt of the form.

## Monitoring and network traffic management

### 12.10 Monitoring

12.10.1 Zain and the other party will monitor and control the flow and routing of traffic in order to maintain compliance with the measures.

12.10.2 Zain will carry out monitoring activities at regular intervals and at various levels of the network hierarchy to optimize use of network capacity and the quality of service.

12.10.3 Zain will deploy resources to carry out all activities required to monitor and maintain the quality of service, in accordance with the terms of the Interconnection Agreement between Zain and the other party.

12.10.4 Zain may also carry out specific monitoring activities on a case-by-case basis at its discretion or in response to a request from an interconnected other party.

#### 12.11 Reactive Capacity Planning

12.11.1 The Other party and Zain will measure traffic on all Interconnect Links to identify congestion and enable maintenance at or above the target Unsuccessful Call Termination Ratio for voice interconnection.

12.11.2 In the event that the traffic, capacity and route forecasting processes have failed to maintain the target Unsuccessful Call Termination Ratio, Zain and the Other party will 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 Unsuccessful Call Termination Ratio.

12.11.3 Either Zain or the other party will have the right to call a meeting of the Technical Review Committee to progress resolution of congestion.

#### Transmission Management - Quality of Service Testing

12.12.1 In case of suspected Wholesale Leased Line, Interconnect or SS7 Signaling Link fault, Zain will monitor the performance of the Zain transmission network and the Bit Error Rate (BER) on specified Wholesale Leased Lines, Interconnect and SS7 Signaling Links by testing for between 15 minutes and 24 hours against the equipment manufacturer's specifications.

12.12.2 other types of test which may be carried out at Zain's initiative or upon request from the other party include:

- Remote Loop tests
- Random signal tests

12.12.3 Zain will also monitor the following alarms:

- Remote alarm indication error
- Multi frame alarm indication error
- Loss of signal
- Alarm indication signal
- Out of frame error

#### 12.12.4 Joint Operational Interconnection Testing

12.12.4.1 Zain and the other party will each be responsible for testing and monitoring the performance of its own Network. Testing of the Interconnect Link and signaling link will be kept to a minimum and will be avoided during the busy hour periods.

12.12.4.2 No testing that may adversely affect an Interconnection service will be carried out before Zain and the other party have agreed to the conduct of such tests, including any routine tests.

12.12.4.3 The requesting Party will book the required test date and the testing duration at least five (5) Business Days prior to the requested testing date. The requesting Party will submit the application form to the requested Party. The request will include the reason for testing and the necessary details for the planning of testing.

12.12.4.4 The requested Party will respond in writing within two (2) Business Days upon receipt of the written request, stating whether it is able to accommodate the testing on the proposed test dates. If the requested Party is not able to perform the testing on the requested test dates, an alternative schedule will be submitted in response to the initial request and discussed in good faith with the requesting Party.

12.12.4.5 The requested testing duration is subject to mutual agreement between the Parties.

12.12.4.6 The Parties will act in good faith to complete all test items within the agreed testing period.

12.12.4.7 All test forms and test specifications for each interface shall be agreed between Zain and the other party. All test items and test results shall be recorded and signed by both Parties, and a copy of the test results shall be available in the respective sites for reference.

12.12.4.8 Any request for extension to the testing duration beyond the agreed timeframe is subject to mutual agreement. Any request for extension will be made at least two (2) Business Days prior to the end of scheduled testing.

12.12.4.9 Neither Party will be held responsible for any delay in completing the agreed testing unless such delay is directly attributable to one Party's fault or negligence.

#### 12.12.5 Mass Call Event

12.12.5.1 A Mass Call Event is defined as the planned occurrence of an unusually high volume of Calls to a specific destination (number or group of numbers).

12.12.5.2 Either Party with knowledge of a user planning a Mass Call Event will provide the other Party with reasonable advance notice, not less than twenty-one (21) Calendar Days, and sufficient information for the other Party to take appropriate action prior to the event.

### 13 Fault Management

#### 13.1 Principles

13.1.1 Each Party will maintain its own fault reporting center which will be responsible for handling faults between Networks, coordinating fault clearance (including escalations) within its own Network and subsequently reporting the clearance of faults to the other Party.

13.1.2 Each Party will provide twenty-four (24) hour contact points for fault reporting.

13.1.3 Contact details for the twenty-four (24) hour contact point for fault reporting to Zain will be provided as illustrated.

13.1.4 A Party detecting a fault which may affect Interconnection services will endeavor to inform the other Party immediately (and in any event within fifteen (15) minutes), regardless of the nature and ownership of the fault and of the fault reporting procedure outlined below.

13.1.5 Prior to activating the fault reporting procedure, the Party reporting the fault must reasonably ensure that a genuine fault exists and also that every effort has been made to prove that the fault is not within the network of the reporting Party.

#### 13.2 Fault Reporting Procedure

13.2.1 All faults will be reported and transmitted to the other Party by fax or other means as mutually agreed to the designated Point of Contact (see 13.1.3 above).

13.2.2 The fault report will include sufficient information to allow the recipient(s) to identify the fault, carry out diagnostics and progress the fault to restoration.

13.2.3 When a Party reports a fault to the other Party, they will specify the classification of the fault reported, i.e. whether it is service Affecting or non-service affecting. They will also exercise their expert judgment and discretion and agree upon whether a nonservice affecting fault will eventually develop into a service affecting fault.

13.2.4 Service affecting fault(s) may cause service interruption to customers when interconnected Calls conveyed between the Networks encounter difficulty in completion. For example, failure of more than one Interconnect Link on a particular route, or loss of an Interconnect Node. Other circumstances that may cause service-affecting faults include: breakdown of major cable plant or loss of SS7 signaling link set.

13.2.5 Non-service affecting fault(s) do not adversely affect the call handling capacity of the Network to complete the interconnected Calls. For example, failure of one Interconnect Link or the loss of an SS7 signaling link (not affecting the signaling link set) will be included in the classification of non-service - affecting fault(s) unless otherwise agreed by both Licensees to upgrade it to service affecting fault(s).

13.2.6 Once in receipt of the fault report, the receiving party will endeavor to identify the fault and respond to the reporting party within the timeframe indicating in the fault response section of the form: the date and time of response, whether the fault has been identified, whether it accepts ownership of the fault and whether it is deemed service affecting or not.

13.2.7 Both Zain and the other party will respond to a fault report.

13.2.8 The fault report will be returned to the designated twenty four (24) hour contact point, unless otherwise specified on the form.

13.2.9 The owner of the fault will assume responsibility for restoration. This may include for example a possible roll-back to initial configuration when a fault has appeared following a change.

13.2.10 The Parties will cooperate in any investigation and follow-up actions and keep each other informed on the status of the progress of the fault clearance in a timely manner.

13.2.11 Once the fault has been repaired, the Party in receipt of the initial fault report will complete the fault closure section on the form and return it to the reporting Party.

13.2.12 The fault will be considered to be cleared when the Party who initiated the fault report has accepted the fault clearance information or confirms a successful test within two (2) hours of receipt of fault closure.

### 13.3 Fault Escalation

13.3.1 Where a fault persists and the Parties agree that progress of the remedy is not satisfactory, the fault may be escalated according to the fault escalation timescales and escalation reporting levels.

13.3.2 The reporting Party will immediately inform its own first level of escalation at the same time as notifying the fault reporting point of the other Party for action.

13.3.3 The Parties will maintain the communication links at the affected site(s) and report on the progress of the restoration work.

13.3.4 The Parties will use the timescales as guidelines for the fault escalation process. The timescales will be used in deciding whether the restoration of a fault is being progressing satisfactorily. If the escalation time has expired and both Parties are satisfied with the progress of the fault restoration, no immediate escalation is necessary.

13.3.5 All requests for escalation will be notified through each Party's fault reporting point.

13.3.6 Persistent faults or issues which cannot be resolved satisfactorily through the normal channels will be escalated to the second level to expedite the fault clearance process.

13.3.7 The Parties will notify their respective and appropriate officers when problems are encountered in the implementation or execution of the fault escalation procedures.

#### 13.4 Information Communication and Notification

13.4.1 Both Parties will provide a twenty-four (24) hour point of contact to receive network traffic management information and queries from each other.

13.4.2 Both Parties will maintain a database of in-service Interconnect and SS7 Signaling Links between their networks in order to facilitate the management of the Interconnection. These databases will contain the following information for each link, and will be reviewed and reconciled from time to time:

- Service Reference number
- A-end exchange (Zain) name, location, manufacturer, software release
- B-end exchange (Other party) name, location, manufacturer, software release
- Transmission path – direction designation, type
- Capacity
- Associated signaling link(s)

13.4.3 Both Parties shall maintain a database of in-service Wholesale Leased Lines in order to facilitate the management of Interconnection. These databases will contain the following information for each link, and will be reviewed and reconciled from time to time:

- Service Reference number
- A-end location
- B-end location
- Capacity

13.4.4 Both Parties will use reasonable endeavors to notify each other when service-affecting problems occur that are likely to impact interconnected traffic. In the event of the failure of a Service Node or more than one interconnection route, the Parties will share all information in order to facilitate resolution of the problem(s) and restore service.

13.4.5 Under no circumstances will either Party be required to provide commercially sensitive information. Information that is supplied by either Party to the other in the context of Interconnection management may be used solely for network management and billing purposes. The Parties will define and adhere to internal procedures that will ensure use of the other's information is restricted in this regard.

#### 13.5 Traffic Controls

13.5.1 The Other party may request a control from Zain in instances where it may be necessary to re-direct or reduce the volume of traffic to the network of the other party.

13.5.2 The Other party may request re-routing of traffic or overflow from primary routes to pre-designated alternative routes. Such arrangements are subject to agreement between the two Licensees and will be documented in their Network Plans.

13.5.3 Protective measures such as call-gapping maybe requested by either Party to prevent overloads in the other's Network. Such measures however will only be applied to emergency or exceptional circumstances and after information has been exchanged and discussions held between Zain and the other party. 13.5.4 When taking such measures unilaterally, either Party will inform the other immediately. Advice of removal of the control will also be given without unnecessary delay.

#### 14 Interconnect Maintenance Process

##### 14.1 Planned Engineering Work

14.1.1 For any planned engineering work within either network which will result in an outage or degradation of Interconnection services between the networks, the party carrying out the engineering work will inform the other in accordance with the procedure detailed below.

14.1.2 The details of the works to be carried out will be recorded and communicated. The advice will state the date, time and duration of such works, the impact to the conveyance of calls between the Networks, any management procedures required, and any contingency measures to be taken by either or both Parties. The schedule and duration of the planned work proposed by the requesting Party will be agreed upon by the other party before commencement of such works and should wherever practical avoid peak traffic periods.

14.1.3 The requesting party, prior to the planned engineering works, will give advance notice of at least five (5) Business Days to the other party.

14.1.4 The requesting party will notify the other party when the work is complete by filling the official letter, which will be transmitted to the other party without unnecessary delay.

##### 14.2 Safety of Persons and Equipment

14.2.1 Both Parties will agree to ensure the protection and safety of persons and equipment at all times during the conduct of testing and engineering works activities.

14.2.2 The use of wrist straps, conducting mats and other safety precautions recommended by the equipment manufacturers shall be strictly followed at all times. Zain shall not be held responsible for any consequences resulting from negligence by the other party in this regard.

##### 14.3 Integrity of Networks

14.3.1 Both parties will agree to take adequate measures to maintain the integrity of their Networks. 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.

14.3.2 Both parties will ensure that:

- a) Adequate measures are taken to prevent the transmission of any signaling message across to interconnected Networks which does not comply with industry standards
- b) Efficient arrangements are established for screening functions to detect and reject non-compliant signals which do not comply with industry standards.

14.3.3 Each Party is responsible for the safe operation of its own Network and will, so far as is reasonably possible, take all necessary steps to ensure that its Network and its network operations:

a) Do not endanger the safety or health of any person, including employees and contractors of either Licensee as well as the general public

b) Do not cause physical or technical harm to the other Licensee's Network, including but not limited to causing damage, interfering with or causing deterioration to the operations of the other Licensee's Network.

## 15 Interconnect Traffic Management

### 15.1 Routing Management

15.1.1 All routings will be carried out in accordance with the National Numbering Plan, as published by CITC and amended from time to time.

15.1.2 Each Party will manage the routing of outgoing calls from their origin to the POI and incoming calls from the POI to their destination.

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

15.1.4 The Parties will each be able to require the other to deliver incoming traffic to their Network to certain destinations on specific Interconnect Links and to request the use of proportional routing or other traffic management techniques. Such requirements shall be reviewed and agreed during the network planning process.

15.1.5 Each Party will present to the other the full Calling Line Identifier (CLI) for all Calls insofar as it is available. 5.1.6 National numbers will not be passed in the international format.

### 15.2 Routing of the other party's traffic towards Zain

15.2.1 The Other party will convey to Zain traffic of the type(s).

15.2.2 In order to ensure correct routing and accounting, should fill the minimum number length required to be implemented in the other party's digit analysis.

## 16 Site Access

### 16.1 Access Times and Authority

16.1.1 Zain sites are monitored and may be accessed twenty four (24) hours a day, seven (7) days a week.

16.1.2 Access will be granted only to the room(s) where the other party needs to visit. Access will be escorted by the site operator's staff where necessary.

16.1.3 Only those individuals whose names the other party has notified to the site operator, in advance, will be permitted to access a site. To that effect, the other party will issue a list stating the full name and official personal identification number, such as Saudi ID, Iqama etc., of each authorized person. The form will be sent to the site operator's NOC (Network Operations Centre) and the commercial account managers of both Zain and the other party, and may be amended from time to time as necessary. Both Licensees reserve the right to approve the submitted names according to their latest security policy and procedures before granting access.

16.1.4 Any individual requiring access will present an identity card at the entrance of the site. Access to the site will be granted upon verification that the name and signature of the individual is recorded on the list of authorized persons in the logbook which will state the date, arrival time, departure time, floor number, room number (if applicable) and purpose of the visit.

### 16.2 Responsibility

16.2.1 The Other party will remain responsible for the action of any authorized individual.

16.2.2 All persons entering Zain premises on behalf of the other party will be allowed to make reasonable use of essential facilities, such as power, lighting, water and toilets.

16.2.3 It is the responsibility of each individual entering Zain premises to ensure that they work in a safe manner. The Other party will ensure that all persons entering the Zain premises on its behalf have adequate training for working on Zain premises, and that these persons comply with all safety and security requirements applicable on Zain premises.

16.2.4 All questions and comments regarding safety and security on Zain’s premises should be addressed in writing to the Zain technical account manager.

## 17 Review and Update

### 17.1 Review and Update Process

17.1.1 The Operational and Maintenance procedures stated in this RO will be reviewed periodically by Zain after consultation with the other parties and updated as appropriate subject to technical and operational capabilities.

## 13. Limitation of Liability

13.1 If either Licensee is in breach of any of its obligations under the Interconnection Agreement pursuant to this RO (excluding obligations arising under this RO to pay moneys), liability shall be limited to three million Saudi Riyals (SAR 3,000,000) for any one event or series of connected events and seven million Saudi Riyals (SAR 7,000,000) for all events (connected or unconnected) occurring in a Calendar Year.

## 14. Staff Safety and Network Protection

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

- a) Endanger the safety or health of employees, contractors, agents, customers of the other Licensee or the general public, or
- b) Damage, interfere with or cause any deterioration in the operation of the other Licensee’s Network.

14.2 Neither Zain nor the other party 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 CITC in accordance with Chapter 12 of the Bylaw.

## 15. Escalation Procedure

Level	Contact Name	Contact Email	Contact Number
1 <sup>st</sup>	NOC	<a href="mailto:nms.core@sa.Zain.com">nms.core@sa.Zain.com</a>	+966592419730
2 <sup>nd</sup>	Almutaz Abdullah	<a href="mailto:Almutaz.Abdulla@sa.Zain.com">Almutaz.Abdulla@sa.Zain.com</a>	+966592442419
3 <sup>rd</sup>	Faisal Alqahtani	<a href="mailto:Faisal.Alqahtani@sa.Zain.com">Faisal.Alqahtani@sa.Zain.com</a>	+966592441838
4 <sup>th</sup>	Abdullah Fahad Obaid	<a href="mailto:Abdullah.obaid@sa.Zain.com">Abdullah.obaid@sa.Zain.com</a>	+966592441739

## 16. Templates

Service Order Form	
Contact Information of the Requesting Service Provider	
Entity Name	
Address	
Contact Person of the Requesting Service Provider	
Name	
Position	
Mobile #	
Email	
Details of the requested services	
(Please mention the details of your request with the required capacities)	
Signature	
Date	