

# Reference Access and Interconnection Offer

## Annex H Ordering, Delivery, Fault Handling and Service Levels

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## 1 Definition

- 1.1 Definitions are handled according to Annex L in addition to the following.
- 1.2 The Critical Networks elements - are RNCs, Mobile HSS, MSS, MGWs, Mobile PS core, Fixed NGN Soft Switch and IP core

## 2 Orders and Requests

- 2.1 The Requesting Party submits to Omantel orders (Submission of Order, SO) concerning services contained in Annex C and the Sub-Annexes or submits Requests (Submission of Request, SR) for services or actions not agreed.
- 2.2 Orders and requests shall be in writing and be signed by authorized staff of the Requesting Party. The Requesting Party e-mails and faxes the order to the designated Omantel contact point according to Annex K.
- 2.3 Orders may be deemed to be Non-standard when a significant and demonstrable impediment exists in Omantel, the effect of which is to prevent timely delivery of the ordered Services. Non-standard Orders are to be treated as Requests. In such cases the Requesting Party shall be notified, with reasons, within seven (7) days of receipt of its Order that its Order will be treated as Non-standard one.
- 2.4 Omantel shall complete feasibility study of at least 70% of the Orders within specific time frame described under this Annex and the relevant Sub Annex of the Services during a calendar year.
- 2.5 Omantel shall provide 80% of the Orders that have passed the feasibility during a calendar year. This figure shall increase to 90% after 12 months have elapsed from the date of the TRA Decision approving this RAIO. For the avoidance of doubt, this figure will be subject to the Requesting Party having fully cooperated with Omantel and that no delays have been caused by factors outside Omantel's control.

### 3 Ordering

- 3.1 Omantel shall as soon as possible and latest 2 Working Days after receiving the Submitted Order (SO) send an Order Acknowledgement (**OA**) that Omantel has received the Order.
- 3.2 An Order shall, to be deemed valid, include all of the information which is needed. Omantel shall, in the case of each service that may be ordered pursuant to this Agreement, provide a form which will indicate clearly all such needed information.
- 3.3 No order should consist of more than one service or group of services, to avoid misunderstanding.
- 3.4 Where clarification is required for an Order, Omantel will discuss the same with the requesting party before the Order is placed. Omantel will contact the designated Requesting Party contact as detailed in the Order.
- 3.5 Omantel shall latest by five (5) working days after the OA, issue a suggested written Delivery Order Offer (DOO) to the Requesting Party. The DOO consists of the ordering details given by the Requesting Party and the Delivery Due Date (DDD) Omantel is prepared to deliver. The Delivery Order Offer is valid for (2) two weeks unless and otherwise specified in the DOO.
- 3.6 The Requesting Party accepts the Delivery Order Offer by signing it and sending it to the Omantel designated contact person and thereby the Acceptance of Order (**AO**) document is considered to be a binding agreement between the parties. If the Requesting Party does not sign the Delivery Order Offer or sends it to Omantel after the validity period is over, the Delivery Order Offer shall be deemed as declined.
- 3.7 The Parties may jointly agree in writing to handle changes and cancellations of orders as is suitable on a case by case basis involving both Parties best efforts to solve the mutual problem that changes and cancellations incur. If the Parties cannot find a mutual solution, a change of an order shall be deemed to be an order cancellation followed by a new order.

## 4 Request Management

- 4.1 Omantel shall as soon as possible and latest 2 Working Days after receiving the Request send a Request Acknowledgement (**RA**) that Omantel has received the Request.
- 4.2 A Request shall consist of all the information according to the Requesting Party's reasonable judgment that is needed for Omantel to process the request. If as per reasonable judgment of Omantel further information is required, Omantel shall specify such information to the Requesting Party within (2) two weeks from sending the (RA).
- 4.3 Where clarification is required for a Request, Omantel will discuss the same with the Requesting Party before the Request is placed. Omantel will contact the designated Requesting Party contact as detailed in the Request.
- 4.4 Omantel shall use all reasonable endeavors to promptly give a written answer on a Request to the Requesting Party in the form of a Delivery Request Offer (DRO) consisting of the Request details given by the Requesting Party, the Delivery Due Date (DDD) and the period for which the Delivery Request Offer is valid. If Omantel, after thirty (30) Working Days, is still not in a position to provide an answer to the Requesting Party, Omantel shall notify the Requesting Party why an answer cannot be provided, setting out the reasons why it is not able to do so and what steps it is taking to rectify the situation, and also specify a Date when Omantel, using its best judgment, can provide an answer to the Request.
- 4.5 The Requesting Party accepts the Delivery Request Offer by signing it and sending it to the Omantel designated contact person and thereby the Acceptance of Request (**AR**) document is considered to be a binding agreement between the parties. If the Requesting Party does not sign the Delivery Request Offer and sends it to Omantel before the validity period is over, the Delivery Request Offer shall be deemed as declined.

## 5 Delivery

- 5.1 This Clause is applicable to Accepted Orders (AO) and Accepted Requests (AR).
- 5.2 If a delay is partly or totally dependent on actions taken or not taken by the Requesting Party (Requesting Party Delay), Omantel shall notify the Requesting Party's designated contact, in Annex K. The Requesting Party Delay is defined as any delay caused by circumstances arising when the Requesting Party lack of readiness affects progress on provisioning or repair. The Delivery Due Date, defined herein above, shall be extended by the number of working days of the Requesting Party Delay. Likewise, if Omantel delayed the Delivery beyond the delivery due date, the Requesting Party shall notify Omantel's designate contact, in Annex K.
- 5.3 Omantel shall, when a Service is delivered and if tested as agreed, notify the Requesting Party that the delivery is completed (Notification of Delivery, **ND**) within 3 working days. Such Notification of Delivery shall be executed by facsimile and/ or e-mail addressed to the position responsible for order management in Annex K. The Notification of Delivery shall contain but is not limited to the following information:
- (a) Identification number of the Delivery
  - (b) Applicable Dates
  - (c) Service description or name
  - (d) Contact information of persons connected to the Delivery
- 5.4 Unless other period is agreed between the Parties, if the Requesting Party finds that the Delivery is not completed properly the Requesting Party must notify Omantel within three (3) Working Days after the expiry of the Delivery Due Date or after the Notification of Delivery, whichever is the later. Such notification ("Notification of non-compliance of Delivery", **NCD**) shall be by e-mail and/ or facsimile addressed to the position responsible for order management in Annex K and consist of, the following
- (a) Identification number of the Delivery

- (b) Applicable Dates
  - (c) Service description or name
  - (d) Contact information of persons connected to the Delivery
  - (e) The missing parts of the Delivery
  - (f) References to Order or other agreement to verify that the complaint is valid
- 5.5 If such Notification of non-compliance of Delivery is not sent to Omantel within the timeframe given in 5.4 the delivery shall be deemed completed.
- 5.6 Omantel shall upon receiving a Notification of non-compliance of Delivery immediately take all necessary actions to correct the Delivery within seven (7) Working Days or within such other period as may be agreed between the Parties in writing.
- 5.7 If the reported non delivery is subsequently found to be incorrect and commercial service was available on the Delivery Due Date, the original date of the completion notice shall apply. Omantel has the right to recover the reasonable and normal costs associated in investigating reported non delivery issues, in the Omantel network, which Omantel shall specify, in reasonable detail.
- 5.8 If the Parties cannot agree to the processes set out in clause 5.2 or clause 5.5, one of the Parties can notify the other that there is a dispute and handle it according to Section 16 in the Main Body of this Agreement.
- 5.9 Omantel shall deliver 80% of the Services, that have passed the feasibility and for which the Delivery Due Date has been committed, within the Delivery Due Date described under this Annex and the relevant Sub Annexes of the Services during a calendar year. This figure shall increase to 90% after 12 months have elapsed from the date of the TRA Decision approving this RAIO. For the avoidance of doubt, this figure will be subject to the Requesting Party having fully cooperated with Omantel and that no delays have been caused by factors outside Omantel's control.



- 5.10 Omantel shall deliver 80% of the delivered Service without any fault within the first three (3) Working Days from the date of the delivery during a calendar year.

## 6 Cancellation

6.1 Cancellation fees are, as applicable, specified for the services in this Sub Annex, Sub Annexes of C or/ and Annex M.

6.2 Cancellation before the Delivery due date:

6.2.1 Cancellation of orders prior to an agreed delivery date is subject to charges. If the Parties have not agreed otherwise or cancellation fees are not specified in a Sub Annex C or Annex M, the cancellation fee shall be equal to all costs reasonably incurred and not recovered as a result of the early cancellation. Omantel shall be able to substantiate such costs on a request in writing by the Party cancelling the service.

6.3 Cancellation after Delivery Due Date is missed:

6.3.1 If the Order delivery extends beyond 15 Working Days from the original Delivery Due Date for Orders as defined in Clause 3.5 of this Annex H and 30 Working Days from original Delivery Due Date for Requests as defined in Clause 1.1 of this Annex H, the Requesting Party has the option of cancelling the order without payment of any charges, costs or penalties. For the avoidance of doubt, this figure will be subject to the Requesting Party having fully cooperated with Omantel and that no delays have been caused by factors outside Omantel's control.

## 7 Service Levels

- 7.1 The Parties shall commence working together to establish metrics and procedures for Service Levels. The following Key Performance Indicators (KPI's) will be used initially until the Parties agree otherwise. For the avoidance of doubt, the following Key Performance Indicators (KPIs) will be subject to the Requesting Party having fully cooperated with Omantel and that no delays have been caused by factors outside Omantel's control.
- 7.2 The Parties agree to report on a quarterly basis to the other Party only the KPI's that have not been achieved the previous quarter.
- 7.3 The quarterly report shall only be sent by each Party within the first ten (10) Working Days of the new quarter if requested within two (days).
- 7.4 The Parties may agree in writing to waive or change the process of providing the quarterly report. The agreement might be reviewed in case if any party requested otherwise.
- 7.5 Key Performance Indicators of the POIs:

KPI	Measurement and definition	Omantel target
Availability of POI	Measurement taken over calendar year.	>= 99.95 %
Time To Resolve critical faults	Measured as an average of the calendar year	95% within 2 hours 99% within 4 hours
Informing the other Party in case Non Availability of the service as determined by the NOC	Measured as an average of the calendar quarter.	<= 30 minutes

Table 7-1 Key Performance Indicator of the POIs

## 7.6 Key Performance Indicators of the Critical Network Elements:

KPI	Networks segments	Omantel target
Critical networks Availability	Measurement taken over calendar year.	99.999%
Time To Resolve critical faults	Measured as an average of the calendar year	98% within 4 hours
Informing the other Party in case Non Availability of the service as determined by the NOC	Measured as an average of the calendar quarter.	2 hours

Table 7-2 Key Performance Indicator of Critical Network

7.7 Outages due to Force Majeure and planned work should be considered as available time.

7.8 Other Key Performance Indicators:

KPI	On Mobile Network	On Fixed Network
Call set up time	Not more than 7 sec	Not more than 7 sec
Call Setup Success Rate	Greater than 98%	Greater than 98%
Drop rate	Less than 0.8%	
Successful data transmission	Not less than 99%	Not less than 99%
Congestion factor	2%	2%

Table 7-3 Other Key Performance Indicator

## 8 Fault Classification

- 8.1 To achieve a functioning Interconnect, with minimum service interruptions or any other faults, Omantel and Requesting Party shall co-operate in the operation and maintenance of their networks.
- 8.2 The Parties will monitor their respective Networks and the interconnection interfaces according to their respective responsibility. The Parties shall report faults to the other Party's position responsible for fault reporting in Contacts in Annex K.
- 8.3 The Parties agree the following fault classification principles will apply. Pending deployment of enhanced TMN facilities by Omantel, the Parties commit to work together in good faith to establish the classification of faults in specific instances.
- 8.4 The Table below defines Fault Severity levels.

Fault Category	Description
Service-Affecting Faults	Service Interruptions to other Party.
Non- Service-Affecting Faults	No Services Impacts

Table 8-1 Fault Severity Level

- 8.5 Responsibilities of the Parties
- 8.5.1 The parties shall co-operate and strive to assist each other in handling the Faults arising in either Party's network or which affect the Interconnection between the Parties.
- 8.5.2 In the event of important problems that may be estimated to affect the Interconnection between the Parties' networks, the Parties shall inform each other in an appropriate manner. If a Party considers that changes made by the other Party are detrimental to the traffic in its Network, the Parties shall discuss the issue.
- 8.6 Each Party is allowed to make changes in its network due to problems observed in either Party's network. If necessary, the Party concerned shall inform the other Party about when such measures will be taken, and propose measures in view of eliminating the problems.

- 8.7 Each Party shall supervise and monitor to a reasonable level key relevant elements in its network, 24 hours a day 365 days a year.
- 8.8 Each Party shall be capable of receiving and acting upon Fault Reports 24 hours a day 365 days a year by telephone, fax or e-mail.

## 9 Fault Repair Procedures

- 9.1 This section describes the measures, information flow and undertakings between the Parties for maintenance of the Interconnection.
- 9.2 The purpose of the fault handling procedures is to ensure that faults are detected by the Parties, and that the Parties inform each other of detected faults and that these faults are rectified as soon as possible.
- 9.3 Table 9-1 below indicates the target time for the rectification of Faults in order to remove the adverse effects on the reporting Party's Network and customers. All faults must be fully repaired and rectified relative to the original routes/POI encountering the reported fault and are not considered repaired or rectified if the traffic has been rerouted. Without limitation of the foregoing, in the event that fault rectification is not possible within a time acceptable to both Parties, the Parties agree to work together to arrive at such interim solution or "Workaround" solution, as may have the effect of maintaining service and/or reducing and/or eliminating adverse effects.

Fault Category	Fault Repair Action start time	'Maximum Fault Repair Time' by the Party in whose network the fault exists	'Fault Status Reporting' by the Party in whose network the Fault exists
Networks with Service Affecting Faults	30 minutes	12 hours from reporting time	Every 2 hour
Networks with Non – Service Affecting Faults	Same day	72 hours from reporting time	Once every day

Table 9-1 Fault Repair Time and Fault Reporting

- 9.4 Table 9-2 below indicates the target repair times for Network Element Outages.

Category	Definition	Maximum Fault Repair Time
Critical	Affecting the entire network, the core of the network or greater or equal to 20% of the traffic in the served area by the MSC which suffers from the outage.	One hour
Major	Affecting a part of the network (or the components of the aggregate part of the network), and influencing less than 20% of the traffic.	Four hours
Minor	Affecting individual sites and/or components at the edge level of the network that do not interrupt services or performance and exceeding 12 hours.	One day
Emergency	Outages affecting the Emergency services	30 minutes

Table 9-2 Network Element Outage repair time

- 9.5 If a Party detects a fault, the Party shall inform the other Party in a Fault Report, containing mandatory information in order to facilitate the fault rectification process.
- 9.6 Fault Report content information:
- Time of Fault reporting by telephone;
  - The tests/results carried out to confirm that the Fault does not exist in the reporting Party's network;
  - Identity of POI and circuits affected;
  - Fault description (e.g., when, A & B numbers affected, traffic direction, intermittent, continuous, line quality or user problems);
  - Reporting Party's reference fault number;



- (f) Fault Category – Critical or Major or Minor (to be solely determined by the Fault Reporting Party);
  - (g) Contact details of the reporting Party;
  - (h) Receiving Party’s trouble ticket number;
- 9.7 The Fault Report should be made by telephone first and subsequently supported by e-mail or facsimile to the designated address for receiving Fault Reports of the receiving Party within one (1) hour as stated in Annex K “Contact Points”.
- 9.8 The following procedures shall be applied:
- (i) The Party detecting a fault shall first check and perform tests to demonstrate that the fault is not located in its own network.
  - (j) The fault reporting centre of the Party detecting a fault shall report the fault to the fault report centre of the other Party,
  - (k) The fault report centre of the Party receiving the Fault Report shall contact the other Party for co-operation.
  - (l) If a fault is reported, the receiving Party will create a ‘Trouble Ticket and number’ that shall be used by both Parties.
  - (m) The receiving Party shall provide Fault Status Reports to the reporting Party with details on actions taken and diagnosis as set out in Table 9-1 above.
  - (n) If the fault is not completely rectified within the Fault Repair Time, the problem may be escalated by the reporting Party to the next Escalation Level within the receiving Party’s organisation according to the fault escalation tables in Annex K.
  - (o) The receiving Party shall inform the reporting Party by telephone and facsimile and/or e-mail if it believes that it has solved the Fault, in order for the reporting Party to carry out tests in its own network as quickly as possible.

- (p) In the event that the reporting Party does not accept that the fault has been rectified the reporting Party will promptly so inform the receiving Party for further action or escalation as may be agreed by the Parties,
- 9.9 If any of the reported Faults is not permanently solved in the 'Fault Repair Time' stated in Table 9-1 above, the reporting Party may escalate the issue within the receiving Party's organisation as stated in "Annex K Contacts"
- 9.10 If requested by either Party, the Parties shall prepare forms or master documents for Fault Reports and Trouble Tickets or any other information exchanged between them for communication purposes.
- 9.11 For all fault reported by the Requesting Party, in case no fault is found from Omantel side, the Requesting Party shall compensate Omantel for all costs to investigate the fault. The charges are listed in Annex M.

## 10 Planned Work

- 10.1 'Planned Work' is defined as: Work on a circuit, equipment or installation used for an Interconnection between the Parties or Any work in a Party's network that will or may affect Services.
- 10.2 The 'Planned Work Notice' information shall include the following details:
- (a) Date, Sender's name, telephone, mobile phone, fax and e-mail contacts;
  - (b) Job reference number;
  - (c) Date and time at which the work will start, and planned duration;
  - (d) Adequate description of the work;
  - (e) POI and circuits that will or may be affected;
  - (f) Expected type of disturbance;
  - (g) Any other information.
- 10.3 The Party wishing to perform 'Planned Works' must inform the other Party by prior e-mail and/or facsimile with a 'Planned Work Notice' according to the timeframes set out below.
- 10.4 The Party intending to carry out Planned Work shall send a 'Planned Work Notice' to the other Party fourteen (14) Calendar Days in advance of the 'Planned Work' commencement date by facsimile or e-mail to the designated address for Planned Work Notifications of the other Party in Annex K. Notwithstanding the foregoing, nothing in this Clause shall be construed to prevent the immediate execution of emergency work which in the reasonable judgment of either Party is both urgent and necessary provided always that the Party intending such work shall as soon as is reasonably practical following the identification of such emergency work inform the other Party by facsimile or e-mail of such intention. For the avoidance of doubt 'emergency' as referenced in this Clause shall be deemed to encompass a directive of the TRA or of a court of competent jurisdiction the terms of which require immediate action of the Party to whom the directive refers.

- 10.5 Any upgrade or change to any hardware, software or configuration concerning interconnection signalling / switching / transmission systems, shall require twelve (12) weeks prior notice or such other notice period agreed in writing, by the Parties. This Notice shall be sent by facsimile and e-mail to the other Party's designated address for Planned Work Notifications in Annex K "Contact Points". During these 12 weeks, the following procedure shall occur:
- 10.6 The Parties shall exchange the specifications (relevant to interconnection interoperability) of the changes to be implemented;
- 10.7 If required by the Party being served by the notice, a detailed test plan will be developed and implemented to validate functionality (the selection of a set from the regression test);
- 10.8 The Parties will validate the new specifications and certify to support them; and
- 10.9 A migration plan will be developed and implemented for the new software to be validated, which shall be incorporated into the new operational configuration.
- 10.10 Escalation Procedure in a "Planned Work Notice" dispute:
- 10.10.1 If the 'Planned Work Notice' cannot be mutually agreed by the Parties, the following escalation routes shall be followed:

Planned Work Escalation Time if operational contacts disagree	Escalation Level	OMANTEL Planned Work Escalation Receiving Contact	Requesting Party Planned Work Escalation Receiving Contact
Issuing Notice		NOC First operational contact	NMC First operational contact
1 Day from Notice	1	Manager Front Office	Interconnect Service Operations Manager
2 Days from Notice	2	GM Operations & Maintenance	Operations Manager
3 days from Notice	3	VP Integrated Networks and Technology	Technical Director

Table 10-1: Planned Work Notice

10.10.2 If the Planned Work exceeds the time limits set out in the Planned Work Notice, then the Planned Work is treated as a fault according to Section 8 and Section 9.

## 11 Operational Meetings

11.1 The Parties will convene Operational/Implementation Meetings which will inter alia serve as the forum for the review of Faults and Planned Works. These meetings will take place once every three months or as such other frequency as agreed by the Parties.

11.2 If it was found that it is necessary to have some joint manuals, the Parties may agree to develop a joint working documents to address the followings:

11.2.1 Network alteration and data management amendments

11.2.2 Maintenance process.

11.2.3 Network termination unit installation.