



VIVA Bahrain

Reference Interconnection Offer (RIO)

Annex B, Schedule 3

MMS Termination Service

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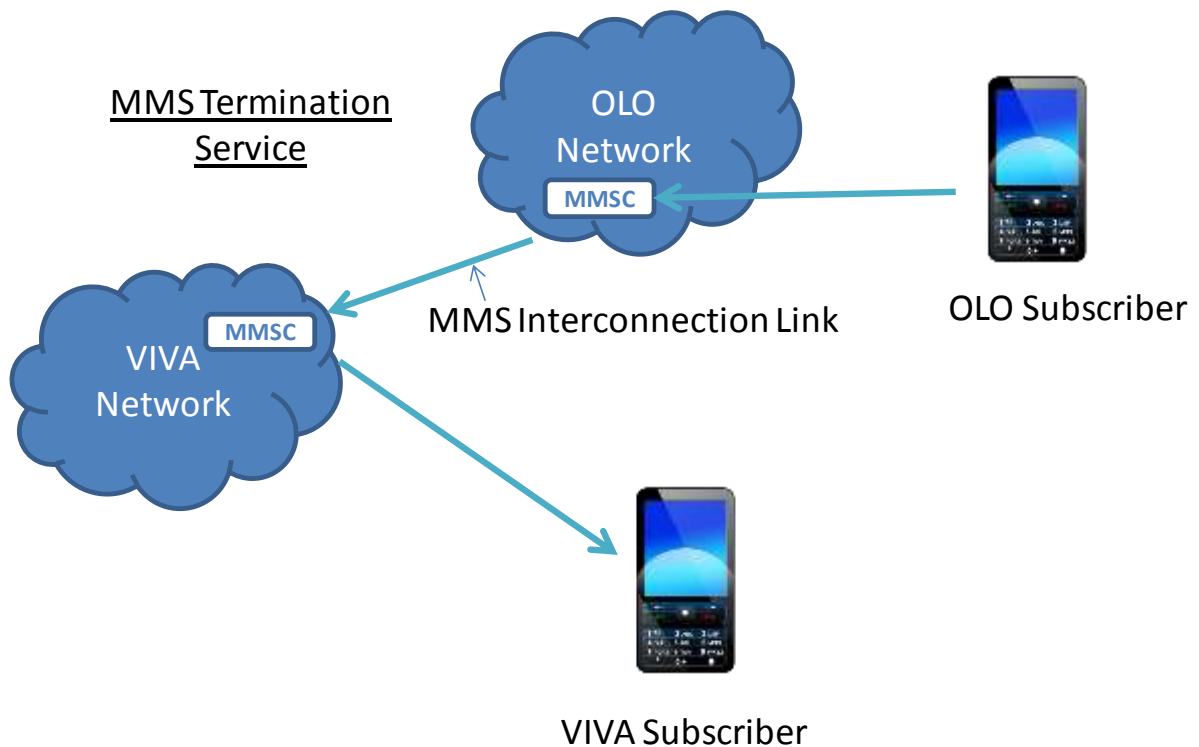
Schedule 3 MMS Termination Service

1. General

- 1.1 A Multimedia Message Service (MMS) allows the sending of messages which contain multimedia content such as sounds, pictures or video, between suitably equipped mobile handsets. The MMS Termination Service is for the termination of MMS Messages using a TCP/IP connection to VIVA's MMS controller as further defined by the terms of this Schedule 3 and by 3GPP TS22.140 and 3GPP TS 23.140 specifications.
- 1.1 The MMS Termination Service is applicable to MMS Messages which terminate to Subscribers in the Kingdom of Bahrain .
- 1.2 This Schedule applies to the supply of the MMS Termination Service where the Other Licensed Operator's Subscriber is directly connected to the Other Licensed Operator's Network and the MMS Message terminates on the relevant device of a VIVA Subscriber.
- 1.3 VIVA shall supply the MMS Termination service in accordance with Clause 4 of the Supply Terms.
- 1.4 VIVA shall only be required to provide the MMS Termination Service to the Other Licensed Operator to the extent that the Other Licensed Operator has complied with Annex F (*Operations and Maintenance*) and this Schedule 3.

2. **Service Outline**

Interconnection Service offered by VIVA	Definition
MMS Termination Service	A service for the carriage of MMS Messages from Subscribers of an Other Licensed Operator using a TCP/IP connection to a mobile device associated with a Subscriber on VIVA’s Network.



3. **Description of Service**

3.1 VIVA shall convey MMS Messages for the contracted period at the same standard is according the 3GPP TS 23.140 V6.9.0 standards; and quality of service as VIVA conveys similar MMS Messages within the VIVA Network.



3.2 The Parties shall agree in advance all necessary technical requirements, including protocol and sequences, for the conveyance of MMS Messages pursuant to this Clause 3 of this Schedule.

3.3 The terms and conditions for establishing the Interconnection Link are provided in Annex B, Schedule 4 for Interconnection Link.

The pricing terms of the Interconnection Link are to be negotiated on a commercial basis. Such terms shall be fair, reasonable and non-discriminatory.

3.4 Each Party shall bear its own costs of connection to a GRX service or the cost of VPN equipment and internet connectivity, as the nature of the MMS Interconnection Link requires.

3.5 Each Party shall locate and correct faults that occur in its Network which affect the conveyance of MMS Message traffic in accordance with such Party's normal engineering practices. For the avoidance of doubt, neither Party warrants that its Network is, or will be, free from faults.

3.6 For the provision of conveyance of MMS Messages the Other Licensed Operator shall pay VIVA a charge calculated in accordance with the rate for such an MMS Message specified from time to time in Annex C (*Price List*).

3.7 The principle of MMS hand-over shall be:

3.7.1 That MMS Messages originating from the mobile handset used by the Subscribers of the Other Licensed Operator are received by the Other Licensed Operator's designated MMSC;

3.7.2 The Other Licensed Operator's MMSC forwards the MMS Message over the MMS Interconnection Link to be sent to VIVA's MMSC;



- 3.7.3 VIVA's MMSC delivers the MMS Message to the mobile handset used by VIVA's Subscriber.
- 3.8 The MMS Termination Service is only for a message size of 400 kilobytes or as agreed by the Parties.
- 3.9 With regard to unsolicited MMS or spamming, the Parties acknowledge that the transmission of unsolicited MMS Messages from a Party's Network to a significant number of Subscribers on the other Party's Network in a manner which is likely to annoy the recipient Subscribers and is undesirable. Each Party shall use its reasonable endeavours to discourage the transmission of unsolicited MMS Messages where commercially and technically feasible.
- 3.10 The Parties shall negotiate in good faith the technical requirements and timetable for the use of the MMS Termination Service. In the event that agreement is not reached either Party may commence the Dispute Resolution procedure in accordance with Clause 19 of the Supply Terms.
- 3.11 Where the Parties have reached an agreement, VIVA will commence implementation in accordance with the agreed timetable.
- 3.12 VIVA will not perform any changes in its Network or commence the supply of the MMS Termination Service until the Parties have completed all necessary Data Management Amendments required for the MMS Termination Service and all MMS Interconnection Links are in place and the associated Price List has been agreed to by the Other Licensed Operator.
- 3.13 The Other Licensed Operator may, at any time, request VIVA to cease supplying the MMS Termination Service and VIVA shall cease supplying the MMS Termination Service as soon as practicable but not later than [7] working days



from the request or at such later time as specified by the Other Licensed Operator in accordance with the terms and conditions specified in Clause 20 (*Breach, Suspension and Termination*) of the Supply Terms.

3.14 VIVA shall use the same retry algorithms as are used for MMS Messages which originate and terminate in its own Network. Retry notification attempts will be resent in five (5) minutes , thirty (30) minutes, and one hundred and eighty (180) minutes until the MMS Message expires which occurs after two (2) Days.

3.15 If the MMS Message notification is sent successfully no retries will be made.

4. **Numbering**

4.1 The Other Licensed Operator shall transmit an accurate A-number with each MMS Message handed over to VIVA.

4.2 For the avoidance of doubt, the Other Licensed Operator shall not have complied with Clause 4.1 if it transmits a modified A-number to VIVA.

4.3 In respect of any MMS Message handed over from the Other Licensed Operator's Network to VIVA's Network, there shall be no charge to VIVA for the provision by the Other Licensed Operator of any number information provided by the Other Licensed Operator, including the A-number.

5. **Forecasts**

5.1 Forecasts shall be supplied in accordance with the processes detailed in Annex F (*Operations and Maintenance*).

5.2 The Parties agree to provide to each other forecasts of MMS Message traffic in accordance with the procedures detailed in Annex F (*Operations and*



Maintenance). The content of the traffic forecasts will cover the average number of MMS Messages per day.

- 5.3 The following conditions apply with regard to MMS Message traffic flow:
- 5.3.1 Unless otherwise agreed as part of settling a forecast, the maximum MMS Message capacity (the Maximum Capacity) being sent by the Other Licensed Operator to the MMS Termination Service shall be 5MMS Messages per second.
- 5.3.2 If the traffic exceeds the Maximum Capacity, VIVA shall use reasonable endeavours to continue to provide the MMS Termination Service but may take reasonable steps to manage the overload traffic.

6. **Charging**

- 6.1 VIVA will for those terminated MMS Messages on VIVA's network collect a Call Detail Record (CDR) for each individual MMS Message and process such records in accordance with this Clause 6.
- 6.2 The CDRs collected by VIVA in accordance with this Clause shall be the source of the data used by VIVA for Billing Verification as per this Clause 6 and to invoice for the MMS Termination Service provided under this Schedule.
- 6.3 The calculation of charges for the MMS Termination Service will be based on the number of MMS Messages in accordance with the applicable rates set out in Annex C (*Price List*).
- 6.4 For the avoidance of doubt, an MMS Message handed over from the Other Licensed Operator to VIVA shall not be a Chargeable MMS where that MMS Message is handed over to VIVA during the period of any suspension of the



MMS Termination Service under Clause 20 (*Breach, Suspension and Termination*) of the Supply Terms.

7. **Billing Information**

7.1 VIVA shall use its reasonable endeavours to provide the Interconnection Usage Report for the MMS Termination Service in accordance with the format set out in Annex D (*Billing Processes and Procedures*) within ten (10) Business Days from the end of each Billing Period together with the invoice for the MMS Termination Service in accordance with Annex D (*Billing Processes and Procedures*).

7.2 In addition to the obligation in Clause 7.1, when there is a Dispute, as defined in Annex D (*Billing Processes and Procedures*), in relation to invoices issued for the MMS Termination Service, then the Dispute Resolution procedures laid out in Clause 4 of Annex D (*Billing Processes and Procedures*) and Clause 19 of the Supply Terms will be followed.

7.3 In the event that VIVA cannot record Billing Information for the MMS Termination Service due to a system error or other faults the Other Licensed Operator will be requested to provide the appropriate Billing Information to VIVA in accordance with the procedure set out in Annex D (*Billing Processes and Procedures*).

7.4 Where the Billing Information collected by the Other Licensed Operator is not available under Clause 7.3 and the procedure set out in Annex D (*Billing Processes and Procedures*), the Parties shall negotiate in good faith such alternative billing arrangements, such as an estimation based on the previous three (3) Calendar Months Billing Periods' Billing Information in accordance with



the procedure set out in the procedure set out in Annex D(*Billing Processes and Procedures*) and as appropriate in the circumstances.

8. **Routing**

8.1 The conveyance of MMS Messages shall be in accordance with the signalling routing principles to be agreed upon between VIVA and the Other Licensed Operator. Such agreement will form part of the Network Plan.



Document History and Version Control

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