



**VIVA Bahrain**

**REFERENCE INTERCONNECTION**

**OFFER (RIO)**

# VIVA Bahrain

## REFERENCE INTERCONNECTION OFFER (RIO)

### Annex B , Schedule 4 - Interconnection Link Service

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1. **Definitions**

For purposes of the service levels applicable to the Interconnection Link Service provided by VIVA to the interconnected OLO, the following terms have the meanings set forth below:

- “POP” means a designated backbone network point-of-presence (POP).
- "Planned Outage" means any impact on Service resulting from maintenance actions requested by or attributed to the interconnected OLO or from scheduled or routine VIVA maintenance operations.
- “Network Outage” means an unscheduled period in which the Service is interrupted and not usable for sixty (60) or more seconds within a time period of 15-minutes, as measured by VIVA.
- “Network Unavailability” means the (%) percentage equal to the total number of minutes in a Billing Month during which a VIVA Internet service circuit is not available to exchange data between the interconnected OLO and the global Internet due to a Network Outage, divided by the total number of minutes in a Billing Month.
- “Service” means the Interconnection Link Service provided by VIVA.
- "Backbone Network" means VIVA owned and operated Internet Protocol (IP) routing infrastructure consisting solely of selected Designated POPs at which VIVA has installed measurement devices.
- “Trouble Ticket” means the method specified by VIVA to be used by the interconnected OLO for advising VIVA of a Service interruption.
- “Excluded Event” For the purpose of calculating Service Credits, Service failures or deficiencies resulting from any of the following events or circumstances (“Excluded Events”) shall not be included:
- Planned Outage: Any impact on Service resulting from maintenance actions requested by or attributed to the interconnected OLO, or from scheduled or routine VIVA maintenance operations. VIVA will notify the interconnected OLO in writing ten (10) days in advance of a Planned Outage period and will endeavor to schedule maintenance at a time agreeable to the Customer.

- Applications, equipment or facilities provided by the interconnected OLO are a cause of the Service outage.
- Acts or omissions of [●] Outages or failures occurring outside of VIVA Backbone Network (i.e. Transmission Networks, at peers, etc.).
- Service's outages caused by the interconnected OLO's own devices
- Power outages within the interconnected OLO's premises
- Force Majeure

## 2. Interconnection Links using VIVA's Infrastructure

### 2.1. Delivery of Interconnection Links

Based on the feasibility study of using VIVA infrastructure to reach the OLO's location, the delivery time of the interconnection links will be as follows:

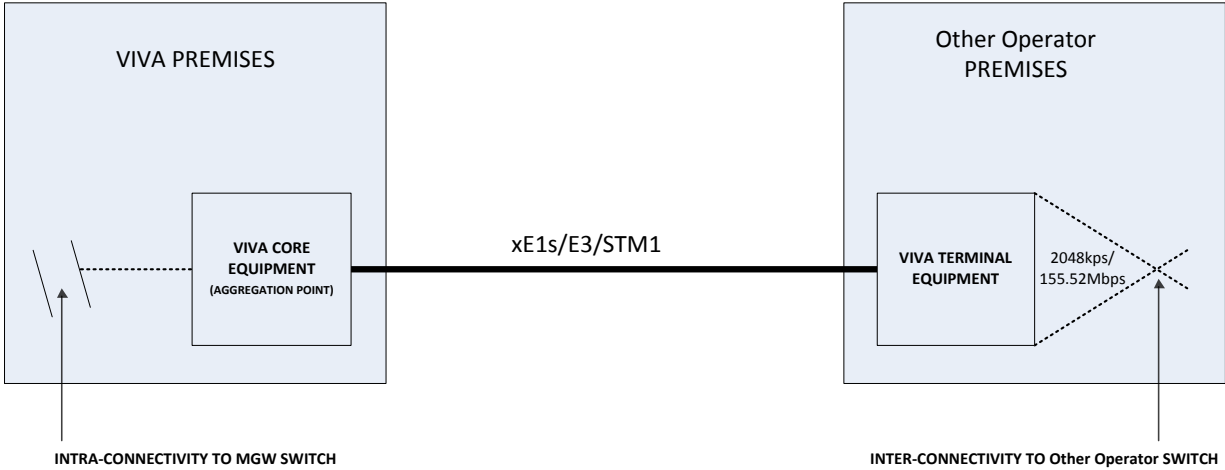
#	Responsibility	Activity	Time Scale (business days)
1	Other Licensed Operator	<b>Submit the request of connectivity to VIVA</b>	
2	VIVA (Network Team)	Evaluate request	2
3	VIVA (Network Team)	Design a solution that meet the reasonable requirements of the Other Licensed Operator	10
4	VIVA (Network Team)	Decide whether a site visit is required or not as if it is required, direct to step 6 and if not to step 8	Included in step 2
5	VIVA / Other Licensed Operators	Organize site visit	2
6	VIVA (Network	Perform site survey	3

	Team)		
7	VIVA (Network Team)	Perform connectivity assessment and decide requested solution is on-net.	1
8	VIVA (Network Team)	Perform network capacity assessment	Included in step 7 time frame
9	VIVA (Network Team)	Decide whether there is a need to increase capacity or not as if there is a need, direct to step 10 and if not to step 11	Included in step 7 time frame
10	VIVA (Network Team)	Estimate cost of capacity increase	5
11	VIVA (Network Team)	Document specifications	1
12	VIVA (Wholesale)	Submit proposal to other licensed operator.	1
13	Other Licensed Operators	Submit the confirmation to VIVA	2
14	VIVA (Network Team)	Dispatch implementation team	10
15	VIVA (Network Team)	Update on progress and activation of Service, and Service Notification Note	20 business days for ONNET Fibre, 60 business days for Microwave
16	VIVA (Wholesale)	If any difficulty in access inform Other Licensed Operator to facilitate	1 days.
17	VIVA (Wholesale)	Notify Other Licensed Operator connectivity	1 day

		completion	
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**2.2. Interconnectivity Diagram**

**Operators INTERCONNECTIVITY**



VIVA CORE EQUIPMENT (AGGREGATION POINT) = SDH MUX

VIVA TERMINAL EQUIPMENT = MW/SDH MUX

**2.3. Support**

VIVA’s Network Operation Center (NOC) provides around-the-clock monitoring, fault reporting and maintenance of VIVA IP services.

**2.4. Backbone Link Utilization**

VIVA monitors bandwidth utilization for each link in the VIVA backbone network with the objective of determining the necessary bandwidth to maintain Service quality.

**2.5. Problem Resolution and Coverage**

- 2.5.1. VIVA will work with [●] to correct service deficiencies, provided that:
- a. [●] informs VIVA of the issue by raising a trouble ticket with VIVA NOC by Phone or email or internet access.
  - b. VIVA will verify that a service deficiency exists and will confirm that resources either under VIVA direct control or resources provided by a third party contracted by VIVA cause the deficiency.

**2.6. Mean Time to restore**

2.6.1. VIVA will use reasonable commercial efforts to resolve service problems with the interconnected OLO within this time frame after the particular incident has been reported to VIVA's NOC and a trouble ticket has been opened.

2.6.2. VIVA Mean Time to Restore (MTTR) depends on the level of loss of service as follows:

Level	Loss of Service	MTTR
Emergency	100%	4 Hours
Level 1	85%	8 Hours
Level 2	50%	12 Hours
Level 3	25%	24 Hours

2.6.3. VIVA will examine its own data, and will provide applicable diagnostics to the interconnected OLO as part of the trouble ticket resolution process. The trouble ticket will be closed automatically within 24 hours when the service restored back to normal and confirmed by the interconnected OLO. If VIVA fails to meet a Target Objective provided in Clause 2.7.1 in a given calendar month, the interconnected OLO shall be entitled to claim Service Credits.

**2.7. Network Availability**

2.7.1. VIVA's Target Objective is to use commercially reasonable efforts to make the Service available at Ninety-nine and seven tenths percent (99.7%) per month.

2.7.2. Network Unavailability is measured by taking an aggregate average of sample availability information collected during a Billing Month between customer premises and the Backbone Network as measured by VIVA.

2.7.3. In the event that Network Outage occurs for reasons other than an Excluded Event, the interconnected OLO shall be entitled to a Service Credit calculated as the percentage to be deducted from the successive relevant Monthly Charge corresponding to the cumulative Network Outage (excluding unavailability periods of less than 60 seconds) in a given billing Month as set forth in the following table:

<b>Cumulative Network Outage (<u>per hour</u>)</b>	<b>Service Credit Deduction</b>
00:00:01 – 04:00:00	No Service credit
04:00:01 – 08:00:00	3%
08:00:01 – 012:00:00	7%
012:00:01 – 24:00:00	14%
24:00:01 – or greater	20%

## **2.8. Service Credit Conditions**

2.8.1. Reference to clause 5 in Annex J, all Service Credits will be calculated based on the Monthly Charge for the affected circuit(s) during the relevant billing Month and applied to the same affected circuit(s). For greater clarity, Service Credits will be calculated as a percentage of the Monthly Charge for the specific circuit affected by service deficiency, and shall not be based on the aggregate amount of the monthly billing to the interconnected OLO for all circuits.

2.8.2. If VIVA fails to meet a Target Objective, as set out herein, in a given calendar month, the interconnected OLO shall have the right to request a Service Credit. Any request for Service Credits must be in writing and must be received by VIVA Account Manager no later than thirty (30) days after the applicable Service failure. Each valid and approved Service Credit will be applied to an invoice of the interconnected OLO within two billing cycles after VIVA's receipt of the interconnected OLO 's request for the Service Credit.

2.8.3. The Service Credit for multiple Target Objective failures resulting from a single incident or during one specific time frame shall not be aggregated but shall be limited to the one particular Service Credit that provides the maximum credit to the interconnected OLO.



2.8.4. Notwithstanding anything in this SLA to the contrary, the total amount of Service Credits credited to the interconnected OLO in connection with Network Outages in any one (1) month period shall not exceed 20% of the Monthly Charge paid by the interconnected OLO for such one (1) month period.

2.8.5. VIVA's failure to achieve or maintain the above Target Objectives is not a breach or material default of the Agreement, and the award of Service Credits shall be the interconnected OLO's sole remedy and VIVA's sole liability for any such failure or corresponding degradation, interruption or loss of Service.

### **3. Interconnection Links using third Parties' Infrastructure**

#### **3.1. Delivery of Interconnection Links**

Based on the feasibility study of using third party's infrastructure to reach the customer location, the delivery time of the interconnection links will be based on the time communicated by the third party plus (2) two business days.

#### **3.2. Mean Time to Restore**

VIVA Mean Time to Restore will be based the time communicated by the third party plus (1) one Hour.

#### **3.3. Network Availability**

In the event that Network Outage, the interconnected OLO will entitled to a Service Credit subject to the third party calculation.

### **4. Fault Reporting Escalation Process**

The escalation process for a fault reporting shall be according to the levels and associated timelines mentioned in Annex J.