

# **SAUDI TELECOM COMPANY**

## **Reference Interconnection Offer (RIO)**

### **Annex E**

### **Forecasting**

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## **ANNEX E: FORECASTING**

This Annex describes the manner in which Interconnection Services are forecast and the relevant forms that will be used.

### **1 Forecasting Of Interconnection Traffic And Links Requirements**

#### **1.1 Forecast Requirements**

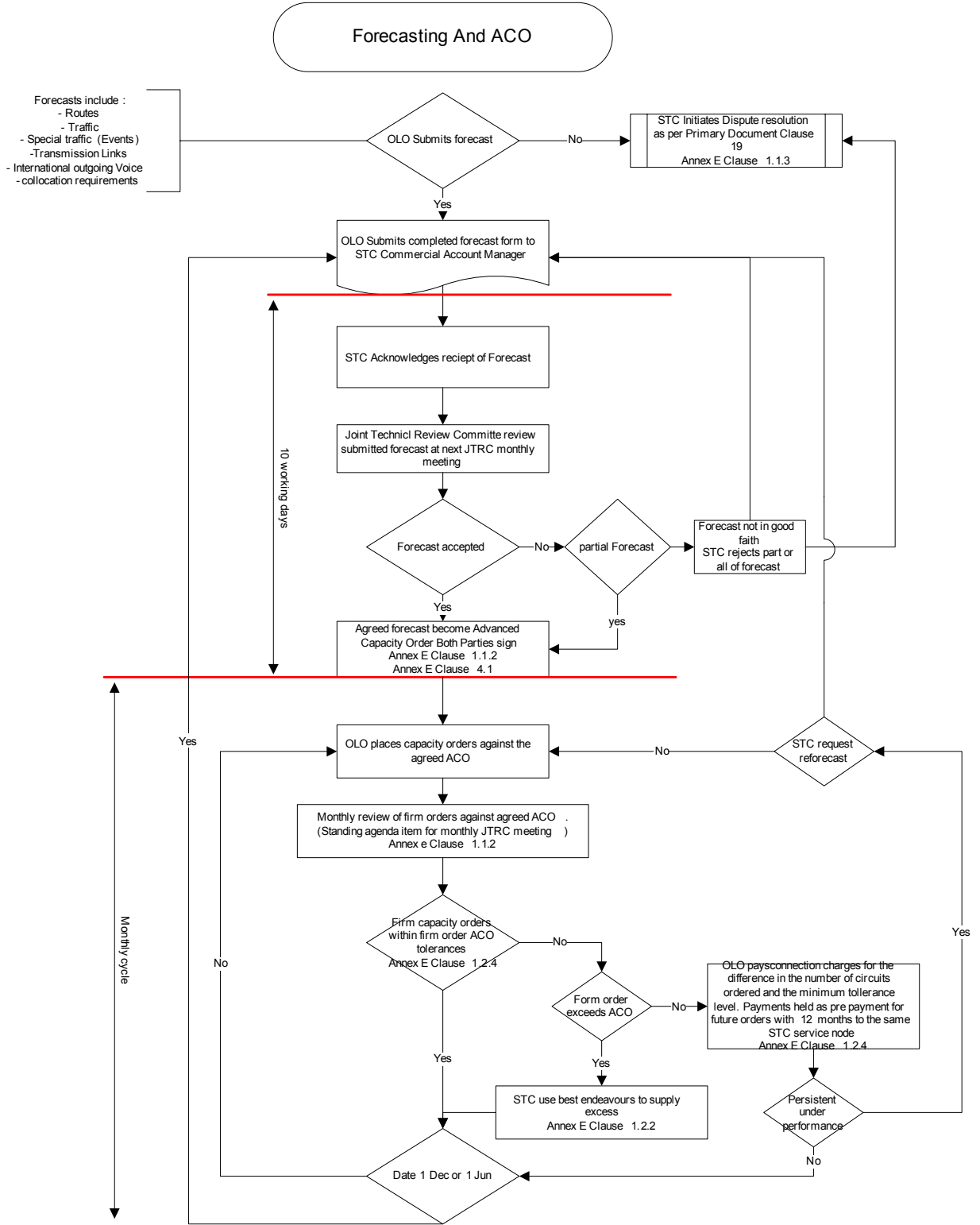
1.1.1 STC requires Other Licensed Operators using STC's interconnection services to provide forecasts between the Other Licensed Operator's and STC's networks, in good faith and as accurately as is reasonably possible, of the following measures:

- Traffic to STC
- Interconnect Link capacity
- Routes capacity
- Signalling capacity requirements.

1.1.2 The following high level forecasting steps will be adopted:

- Other Licensed Operator submits initial forecast
- Joint Technical and Commercial Review Committee agree forecast.
- Forecast becomes Advanced Capacity Order (ACO)
- ACO sets months 1 to 12 commitment levels
- Other Licensed Operator places firm orders against ACO
- Firm orders monitored against ACO
- Reforecast submitted every 6 months

- ACO extended by further 6 months



Forecasting and ACO Flow Diagram

- 1.1.3 In the event that the Other Licensed Operator does not provide forecasts or is believed not to provide forecasts in good faith, STC 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.
- 1.1.4 Route forecasts shall be given in terms of the locations of the A and B ends for at least six (6) months prior to any firm order. The Other Licensed Operator, in accordance with the template provided in Annex E - Attachment 1 (New Route Forecasting Form), shall update these forecasts every six (6) months.
- 1.1.5 The Other Licensed Operator shall provide to STC forecasts for interconnect link capacity in terms of E1 circuits required every six (6) months on 1 December and 1 June of each year in the format shown in Annex E, Attachment 2 (*Interconnect Link Forecasting Form*). This shall be monthly for months 1 to 12 and quarterly for months 13 to 24.
- 1.1.6 The Other Licensed Operator shall provide to STC forecasts for network traffic in terms of busy hour Erlangs required every six (6) months on 1 December and 1 June of each year in the format shown in Annex E, Attachment 3 (*Network Capacity Forecasting Form*). This shall be monthly for months 1 to 12 and quarterly for months 13 to 24. The Other Licensed Operator shall update these forecasts every six (6) months.
- 1.1.7 The Other Licensed Operator shall provide to STC forecasts for any special or predicted network traffic variations (e.g. unusual or peak demands) if it is expected that traffic will deviate from normal patterns.
- 1.1.8 If no Capacity Forecasting Form update is received, the forecast shall remain unchanged from that previously submitted until the following period.

## 1.2 Advanced Capacity Order (ACO) Forecasting Restrictions

- 1.2.1 The Other Licensed Operator shall update the Advanced Capacity Orders (ACO) on December 1st and June 1st of each year by submitting the ACO forms, as per Attachments 1, 2 and 3, to the STC Commercial Account Manager.
- 1.2.2 Increases in capacity orders for the next forecast period shall be subject to availability of equipment and resources. STC can offer no guarantees that such increases in ACOs can be satisfied.
- 1.2.3 Decreases in capacity orders for the next forecast period shall be accepted subject to reasonable charges being levied by STC on the Other Licensed Operator 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 STC network.
- 1.2.4 Decreases in ACOs for the remaining forecast periods are subject to the following restrictions without penalty. Failure to place capacity orders within the tolerance shown in Figure 1 below shall result in pre-payment of connection charges as specified in Annex F (*Price List*) being paid by the Other Licensed Operator up to the value of the minimum tolerance ACO. This payment will be treated as a pre-payment for future capacity orders placed for interconnect links to the same STC service node within the next 12 months.

	T <sub>0</sub>	T <sub>+1</sub>	T <sub>+2</sub>	T <sub>+3</sub>	T <sub>+4</sub>	T <sub>+5</sub>	T <sub>+6</sub>	T <sub>+7</sub>	T <sub>+8</sub>	T <sub>+9</sub>	T <sub>+10</sub>	T <sub>+11</sub>	T <sub>+12</sub>
Change permitted	0%	0%	-12%	-14%	-16%	-18%	-20%	-25%	-25%	-25%	-25%	-25%	-25%

**Figure 1: Tolerance for Variations in ACOs by Month from Start of Forecast**

## 1.3 Reactive Capacity Planning

- 1.3.1 The Other Licensed Operator and STC shall agree to measure traffic on all Interconnect Links to identify congestion and maintain the Target Grade of

Service for voice service interconnection as set out in Annex I (*Quality of Service Measures*).

- 1.3.2 In the event that the traffic, capacity and route forecasting processes have failed to maintain the Target Grade of Service, STC and the Other Licensed Operator shall agree to work together in good faith to resolve congestion issues by planning, as necessary, further interconnection capacity or new traffic routing plans in an expedient manner and permit the free flow of traffic between the networks according to the Target Grade of Service. Either Licensee shall have the right to call a meeting of the Joint Technical Review Committee as detailed in Annex D (*Management of Interconnection*) to progress resolution of congestions.

#### **1.4 Planning of New Points of Interconnection**

- 1.4.1 Prior to making Interconnection available on new or previously not interconnected switching facilities, STC or the Other Licensed Operator, 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. (See Annex H (*Operations and Maintenance Manual*))
- 1.4.2 Forecasts for new routes should be submitted using the form in Attachment 1 (*New Route Forecasting Form*) of this Annex.

### **2 Forecasting Of Transmission Link Services**

#### **2.1 Forecast Requirements**

- 2.1.1 STC requires Other Licensed Operators using STC's Transmission Link Services to provide forecasts of the number and capacity of Transmission links between the Other Licensed Operator's locations.



2.1.2 Transmission Link Services forecasts shall be given in terms of the locations of the A and B ends for at least six (6) months prior to any firm order. The Other Licensed Operator, in accordance with the template provided in Annex E, Attachment 4 (*Transmission Link Forecasting Form*), shall update these forecasts every six (6) months.

### **3 Forecasting Of International Outgoing Voice Minutes Services**

#### **3.1 Forecast requirements**

3.1.1 STC requires Other Licensed Operators using STC's Wholesale Outgoing International Voice Minute Conveyance Services to provide forecasts of the number of minutes by destination.

3.1.2 The Other Licensed Operator shall provide to STC forecasts for Wholesale Outgoing International Voice Minute Conveyance Services minutes required every six (6) months on 1 December and 1 June of each year in the format shown in Annex E - Attachment 5 (*International Outgoing Minutes Forecasting Form*), this shall be monthly for months 1 to 12 and quarterly for months 13 to 24. The Other Licensed Operator shall update these forecasts every six (6) months.

### **4 Forecast Agreement and Approval**

4.1 The Joint Technical Committee shall review all forecasts at a meeting to be convened within ten (10) days of receipt of the forecast by STC. If approved, authorised representatives of both parties will sign the forecasts to signify their commitment to the forecast.

4.2 If the parties fail to agree the forecast or part thereof then either party may notify the other of a dispute. Only those portions of the forecast that have not been agreed shall be in dispute.

## **5 Forecast Review**

- 5.1 The Joint Technical Committee will review the Other Licensed Operator forecast on a monthly basis. If the ordering profile significantly deviates from the agreed forecast tolerances as stated in Clause 1.2.4 above STC reserves the right to request a re-forecast.

## **6 Reciprocity of Forecasting**

- 6.1 Demand forecasts for Interconnection Services, and the adherence to the procedures stated in this Annex, 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 stated in this Annex E are only applicable to the party requesting the service.

**ATTACHMENT 1 – NEW ROUTE FORECASTING FORM**

STC JV Code	Licensee Interconnect Node name	Licensee Switch type	Traffic type	Date route to be required operational	Initial required Capacity	Service protection (Yes/No)

**Signature**.....

**(Other Licensed Operator’s Authorised Representative)**

**Date** .....

**ATTACHMENT 2 – INTERCONNECT LINK FORECASTING FORM**

STC JV Code <sup>1</sup>	Licensee interconnect Node name <sup>2</sup>	Interconnect Route designation	Traffic type	Interconnect links					
				Period 1	Period 2	Period 3	Period 4	Period...n	Period 16

**Signature** .....

**(Other Licensed Operator’s Authorised Representative)**

**Date** .....

<sup>1</sup> STC JV Code should be as per Annex C – Attachment 2 – Points of Interconnection.

<sup>2</sup> The Interconnect Route must be clearly defined with the address of the Licensee’s Node, building plan and other necessary details required to deliver a physical interconnection route to the Licensee’s Interconnect Node.

**ATTACHMENT 3 – NETWORK CAPACITY FORECASTING FORM**

Traffic forecasts shall be given in terms of Erlangs during the peak and off-peak ‘Busy Hours’ for a period of 2 years in advance. These forecasts will be updated every quarter by the Licensee as per the Traffic Forecast in the following format:

STC JV Code <sup>3</sup>	Licensee interconnect Node name <sup>4</sup>	Interconnect Route designation	Traffic type	Busy Hour time	Busy Hour Erlangs				
					Period 1	Period 2	Period 3	Period ...n	Period 16

**Signature**.....

**(Other Licensed Operator’s Authorised Representative)**

**Date** .....

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<sup>3</sup> STC JV Code should be as per Annex C – Attachment 2 – Points of Interconnection.

<sup>4</sup> The Interconnect Route must be clearly defined with the address of the Licensee’s Node, building plan and other necessary details required to deliver a physical interconnection route to the Licensee’s Interconnect Node.

**ATTACHMENT 4 – TRANSMISSION LINK SERVICE FORECASTING FORM**

Licensee Location A-end	Licensee location B-end	Capacity	Date Transmission link to be required operational	Transmission rate	Number of Links

**Signature**.....

**(Other Licensed Operator’s Authorised Representative)**

**Date** .....

**ATTACHMENT 5 – OUTGOING INTERNATIONAL MINUTES FORECASTING FORM**

Country	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period ...n	Period 16

**Signature**.....  
**(Other Licensed Operator’s Authorised Representative)**

**Dates** .....