

**SCHEDULE 2**

**ORIGINATION, TERMINATION AND TRANSIT (O/T/T)**

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## **SCHEDULE 2 - GENERAL**

### **ORIGINATION, TERMINATION AND TRANSIT (O/T/T)**

1. This Schedule 2 sets out the terms and conditions under which the Parties will provide the Call Origination Service, the Call Termination Service and the Call Transit Service to each other.
2. In this Schedule, the Party supplying the Call Origination Service, the Call Termination Service or the Call Transit Service shall be known as the Supplier and the Party acquiring the Service shall be known as the Acquirer.
3. This Schedule is comprised of the following sections:

Schedule 2A - Call Origination Service

Schedule 2B - Call Termination Service

Schedule 2C - Call Transit Service

**SCHEDULE 2A**  
**CALL ORIGINATION SERVICE**

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## SCHEDULE 2A – CALL ORIGINATION SERVICE

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## SCHEDULE 2A

### CALL ORIGINATION SERVICE

#### 1. GENERAL

- 1.1 The Supplier will supply the Call Origination Service from the Supplier's Network in accordance with clause 11.1 of the main body of the RIO Agreement in respect of the Call Types for which the process in clause 3 has been followed and, in the case where SingTel is the Acquirer, in respect of the Call Types specified in Annex 2A-4 (**Originating Interconnected Calls**).
- 1.2 Notwithstanding the Interconnection of the SingTel Network and the Requesting Licensee's Network, the Supplier shall have no obligation to provide the Call Origination Service in respect of Calls of any type other than Originating Interconnected Calls.
- 1.3 The Supplier will only be required to provide the Call Origination Service to the Acquirer to the extent that the Acquirer has complied with Schedule 1 and this Schedule 2A.
- 1.4 The Acquirer shall provide and maintain the Interconnection Links for the conveyance of Originating Interconnected Calls.

**SingTel Comments: New clause 1.4**

*SingTel has inserted new clause 1.4 to make it clear that the Acquirer is responsible for the provision and maintenance of Interconnection Links.*

#### 2. CUSTOMER REGISTRATION, BILLING & DEBT

- 2.1 The Acquirer is responsible for tariffing, Customer billing, collection and bad debts in respect of the provision of telecommunications services to its Customers using the Call Origination Service.

#### 3. CALL TYPES

- 3.1 This clause 3 applies where the Acquirer wishes to extend the use of the Call Origination Service provided by the Supplier to a Call Type in respect of which the process in this clause 3 has not already been undertaken or, in the case where SingTel is the Acquirer, has not been specified in Annex 2A-4.

**3.2** The Acquirer shall notify the Supplier by means of the request form set out in Annex 2A-1 of its request to extend the use of the Call Origination Service to a particular Call Type.

**SingTel Comments: Former clause 3.3**

*SingTel has removed the requirement for the Supplier to acknowledge receipt of a request in order to streamline ordering and provisioning processes, as required by the IDA. SingTel notes that requests must still be notified in accordance with clause 28.1 of the main body of the RIO Agreement, as amended.*

**3.3** Following receipt of a request form under clause 3.2, the Supplier shall assess that request and notify the Acquirer that either:

- (a) the implementation of the request in respect of the requested Call Type involves only Network Conditioning in the Supplier'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 Call Type involves work in addition to or as an alternative to Network Conditioning in the Supplier's Network, in which case the Negotiation Period shall be sixty (60) Business Days.

**3.4** The Parties shall negotiate in good faith the requirements, implementation charges and timetable for extending the use of the Call Origination Service provided by the Supplier to the requested Call Type for the Negotiation Period notified in clause 3.3, failing which either Party may commence the Dispute Resolution Procedure in accordance with Schedule 11.

**3.5** Where the Parties have reached an agreement in accordance with clause 3.4 above, the Supplier will commence implementation in accordance with the agreed timetable.

**3.6** The Acquirer shall be liable for the costs incurred by the Supplier in processing and implementing the Acquirer's request to extend the use of the Call Origination Service to a particular Call Type.

**SingTel Comments: New clause 3.6**

*Please refer to our comments in relation to clause 3.8 below.*

**3.7** Nothing in this clause 3 requires the Supplier to perform any changes in its Network or to commence the supply of Call Origination Services for a Call Type until the Parties have

completed the Change Process for that Call Type and all Network Conditioning Charges have been agreed to by the Acquirer.

- 3.8** The Acquirer may, at any time, request the Supplier cease to supply the Call Origination Service in respect of a Call Type, in which case the Supplier shall cease to supply the Call Origination Service in respect of that Call Type as soon as reasonably practicable or at such later time as specified by the Acquirer. The Acquirer shall be liable for the costs incurred by the Supplier in ceasing the supply of the Call Origination Service in respect of that Call Type.

**SingTel Comments: Clause 3.8**

*A Supplier incurs certain unavoidable costs:*

- *in processing and implementing an Acquirer's request to extend the use of the Call Origination Service to a particular Call Type; and*
- *when the Acquirer ceases to acquire the Call Origination Service in respect of a Call Type.*

*As the Supplier provides the Call Origination Service at cost to the Acquirer, the Supplier should be entitled to recover the costs associated with processing a request to extend the use of the Call Origination Services to a particular Call Type and the cessation of the Call Origination Service in respect of a Call Type.*

*SingTel considers that this amendment is fair and reasonable. In particular, this clause will operate reciprocally – SingTel would be liable to the Supplier for its costs in ceasing to supply the Call Origination Service in respect of a Call Type when SingTel is the Acquirer.*

**4. CHARGING PRINCIPLES**

**4.1** For any Originating Interconnected Call that originates from the Supplier's Network, the Supplier will collect the Origination Charge from the Acquirer.

**4.2** For any Call Origination Service that transits through another Licensee's Network, the Supplier will collect the Origination Charge from the Acquirer and recover any Transit Charge from the Acquirer for such Charges that the Supplier pays to the other Licensee's Network who provides a call transit service. Each Party shall, for those Originating Interconnected Calls for which it is providing or receiving (as the case may be) a Call

Origination Service, collect a Call record for each individual Originating Interconnected Call on a CDR basis and process such records in accordance with clause 5.

**SingTel Comment: Clause 4.2**

***Bulk metering is no longer used for Inter-Operator Billing at SingTel Interconnect Gateway Switches.***

- 4.3** The Call records collected by the Supplier in accordance with this clause 4 shall be the source of the data used by the Supplier to invoice for the Call Origination Service it provides under this RIO Agreement.
- 4.4** The calculation of Charges for Call Origination Service will be based on the number of Call Durations recorded on the basis of the applicable Billing Unit, and in accordance with the applicable rates set out in Schedule 9.
- 4.5** Calls shall be charged based on the rates for the duration of use of the circuit for the Call Duration of use of a circuit shall start at the time the circuit used for the Call is seized and end at the time the circuit is released. All Calls, regardless of whether they are successful or unsuccessful, are chargeable. The Charges shall be accounted in per second blocks.
- 4.6** The Parties shall agree that if a Chargeable Call Duration extends over two (2) or more Charge rate periods, the Call shall be recorded as a single Call in the Charge rate period which applies at the commencement of the Call and the Chargeable Call Duration will be determined by adopting the applicable rate set out in Schedule 9 for the applicable charging period in which the Call is answered.
- 4.7** The Parties agree that for Calls that cross over to the next Billing Period, the Calls shall be billed in the Billing Period in which those Calls end.

**5. BILLING VERIFICATION INFORMATION**

- 5.1** The Supplier shall use its reasonable endeavours to provide Billing Verification Information for the Call Origination Service in accordance with the format set out in Annex 2A-2 within fourteen (14) Calendar Days from the end of each Billing Period, together with the invoice for the Call Origination Service to be issued in accordance with Schedule 9.

- 5.2** In addition to the obligation in clause 5.1 when there is a dispute in relation to invoices issued for the Call Origination Service, the Parties shall exchange the Detailed Billing Verification Information set out in Annex 2A-3.
- 5.3** In the event that the Supplier cannot record Billing Verification Information for the Call Origination Service due to a system error or other fault, upon the request of the Supplier, the Acquirer shall provide Billing Verification Information to the Supplier.
- 5.4** Where the Billing Verification Information collected by the Acquirer is not available under clause 5.3, the Parties shall negotiate in good faith alternative Billing arrangements, such as an estimation based on the previous three (3) months' Billing Verification Information that are appropriate in the circumstances.

## **ANNEX 2A-1 : REQUEST FORM FOR INTRODUCING NEW CALL TYPE (CALL ORIGINATION SERVICE)**

### **1. GENERAL**

#### **1.1 Call Type Name and Description**

*The Acquirer is to provide a general description of Call Type.*

#### **1.2 Date to be Introduced (Proposal)**

*The Acquirer is to indicate the preferred implementation date for access to be available.*

### **2. NUMBER RELATED INFORMATION**

*The Acquirer is to specify the service code or number range for the Call Type (e.g. 00x, 15xy) as well as the number length.*

### **3. NETWORK CONFIGURATION**

#### **3.1 Network Configuration/Routing Information**

*The Acquirer is to indicate the Network configuration (with a diagram) through which the Call Type is to be conveyed.*

#### **3.2 Trunk Group (Circuit Assignment)**

*The Acquirer is to indicate how traffic to the Call Type will be routed, as well as which trunk groups are to be used at the Interconnect Gateway Switches.*

#### **3.3 Other Engineering Requirements**

*The Acquirer may list down other requirements required for the Call Type, such as routing of traffic to mass Calls on choked circuits.*

### **4. SIGNALLING**

*The Acquirer is to provide details on the signaling requirements upon which Call Type is to be delivered. Attachment or reference to the relevant ITU-T Recommendations is required. If a new Call flow signaling sequence is required to support the new Call, this is also to be captured in this section.*

**5. TESTING**

*The Acquirer is to specify the testing requirements, such as testing configuration, test numbers, etc. The preferred testing timeframe is also to be indicated.*

**6. BILLING AND CHARGING REQUIREMENT**

**6.1 Customer Billing**

*The Acquirer is to specify which Party is to bill the Customer and how settlement is to occur.*

**6.2 Operator Billing**

*The Acquirer is to indicate how inter-operator Billing and settlement is to occur.*

**7. BILLING INTEGRATION**

*Both Parties are to look at the downstream billing requirements to cater for the settlement between the Parties. Both Parties have to ensure that the agreed arrangements for Customer and operator Billing and settlement can be implemented and establish timetables for their implementation.*

**8. OTHER REQUIREMENTS**

*The Acquirer may specify any other requirements for Call Type to be delivered.*

**ANNEX 2A-2 : BILLING VERIFICATION INFORMATION FOR CALL ORIGINATION SERVICE**

**BILLING INFORMATION FOR THE SUPPLIER**

<b>Call Description</b>	<b>Time Zone</b>	<b>Call duration (in secs)</b>	<b>Call charges (in S\$)</b>
<b>Originating from the Supplier's Network terminating to the Acquirer's Network (Origination Charge)</b>	<b>Peak</b>	<b>5400</b>	<b>\$xxx.xx</b>
	<b>Off Peak</b>	<b>2700</b>	<b>\$xxx.xx</b>
<b>Total</b>		<b>xxxx</b>	<b>\$xxx.xx</b>

**ANNEX 2A-3 : DETAILED BILLING VERIFICATION INFORMATION**

**1. BILLING VERIFICATION FOR SUPPLIER IGS**

S/N	ExchID	System	Time Zone	Terminating to Acquirer's Network	
				(Originating from Supplier's Network)	
				Originating Charge payable by Acquirer	
				Attempts	Duration (in secs)
1	IGS1	FBO001	Peak	444	4442
			Off Peak	2334	23345
2	IGS1	FBO002	Peak	444	4442
			Off Peak	2334	23345
3	IGS2	FBO001	Peak	444	4442
			Off Peak	2334	23345
4	IGS2	FBO002	Peak	444	4442
			Off Peak	2334	23345
5	IGS3	FBO001	Peak	444	4442
			Off Peak	2334	23345
6	IGS3	FBO002	Peak	444	4442
			Off Peak	2334	23345
7	IGS4	FBO001	Peak	444	4442
			Off Peak	2334	23345
8	IGS4	FBO002	Peak	444	4442
			Off Peak	2334	23345

**2. BILLING VERIFICATION FOR SUPPLIER SGS**

S/N	ExchID	System	Time Zone	Terminating to Acquirer's Network	
				(Originating from Supplier's Network)	
				Originating Charge payable by Acquirer	
				Attempts	Duration (in secs)
1	SGS1	SBO001	Peak	444	4442
			Off Peak	2334	23345
2	SGS1	SBO002	Peak	444	4442
			Off Peak	2334	23345
3	SGS2	SBO001	Peak	444	4442
			Off Peak	2334	23345
4	SGS2	SBO002	Peak	444	4442
			Off Peak	2334	23345

## **ANNEX 2A-4 LIST OF CALL TYPES FOR CALL ORIGINATION SERVICE**

SingTel International Direct Dial "001" Service

SingTel International Direct Dial "004" Service

SingTel International Direct Dial "011" Service

SingTel Standard Trunk Dial "020" Service

SingTel International Budget Call "013" Service

SingTel Phone to Phone IP "019" Service

SingTel Operator Assisted Call "104" Service

SingTel International Toll Free "800" Service

Postal Enquiry "1605" Service for SingPost

SingTel Business Telephone Enquiries and Applications "1606" Service

SingTel Telephone Fault Reporting "1608" Service.

SingTel Residential Telephone Enquiries and Applications "1609" Service

Customer Enquiry "1610" Service for SingNet

Customer Enquiry "1620" Service for SingTel Paging

Customer Enquiry "1622" Service for MobileOne

Customer Enquiry "1626" Service for SingTel Mobile

Customer Enquiry "1627" Service for MobileOne

SingTel Customer Service and Billing Enquiries "1688" Service

SingTel Local Toll Free "1800" Service

SingTel Virtual Private Network "1880" Service

SingTel Virtual Private Network "1881" Service

SingTel Virtual Private Network "1882" Service

SingTel ICC PIN Change "1890" Service

SingTel International Bonus Card "1891" Service

SingTel ICC Budget Card Postpaid "1892" Service

SingTel Budget Call Prepaid Card "1893" Service

SingTel International Calling Card "1898" Service

SingTel World Card "1899" Service