

SCHEDULE 2B

CALL TERMINATION SERVICE

CONTENTS

SCHEDULE 2B – CALL TERMINATION SERVICE

SCHEDULE 2B – CALL TERMINATION SERVICE

1. GENERAL	2
2. FORECASTS	2
3. CALL TYPES	4
4. GEOGRAPHIC NUMBER ACTIVATION	5
5. CHARGING PRINCIPLES	5
6. BILLING VERIFICATION INFORMATION	6

SCHEDULE 2B - ANNEXES

ANNEX 2B-1 : REQUEST FORM FOR INTRODUCING CALL TYPE (CALL TERMINATION SERVICE)	8
ANNEX 2B-2 : BILLING VERIFICATION INFORMATION FOR CALL TERMINATION SERVICE	10
ANNEX 2B-3 : DETAILED BILLING VERIFICATION INFORMATION	11
ANNEX 2B-4 : FORECASTING OF NETWORK CAPACITY	13
ANNEX 2B-5 : PROCEDURE FOR GEOGRAPHIC NUMBER ACTIVATION	14

SCHEDULE 2B

CALL TERMINATION SERVICE

1. GENERAL

- 1.1 SingTel will use its reasonable endeavours to supply the Call Termination Service to the SingTel Network in accordance with this Schedule in respect of the Call Types for which the process in clause 3 has been followed (**Terminating Interconnected Calls**).
- 1.2 For the avoidance of doubt the process in clause 3 must be initiated by the Requesting Licensee if it wishes to acquire the Call Termination Service in respect of Calls from Requesting Licensee origins not previously covered by a request under clause 3.
- 1.3 Notwithstanding the Interconnection of the SingTel Network and the Requesting Licensee's Network, SingTel shall have no obligation to provide the Call Termination Service in respect of Calls of any type other than Terminating Interconnected Calls.
- 1.4 SingTel will only be required to provide the Call Termination Service to the Requesting Licensee to the extent that the Requesting Licensee has complied with Schedule 1 and this Schedule 2B.

2. FORECASTS

- 2.1 This section applies to Forecasts to be provided by the Requesting Licensee to SingTel in relation to Network Capacity, if the Requesting Licensee reaches a minimum Interconnection Capacity of sixty-three (63) E1s for Interconnection with the SingTel Network.
- 2.2 The Requesting Licensee shall provide to SingTel the Forecasts for Network Capacity required for the provision of the Call Termination Service on or near 1 March and 1 September of each year and in the formats in Annex 2B-4.
- 2.3 The Forecasts shall be for periods commencing six (6) months from 1 April and 1 October (**Forecast Date**) respectively, and be for a period of thirty-six (36) months, in intervals of six (6) months for the first twelve (12) months, and yearly thereafter.
- 2.4 Subject to clause 20 of the main body of this RIO Agreement, SingTel will respond to a Forecast within fifteen (15) Business Days, or any other period as may be agreed, of receipt. The response shall be either:

- (i) an acknowledgment that SingTel is able to provide the Forecasted Network Capacity in the first six (6) month period by a particular date (**Forecast Delivery Date**);
 - (ii) an acknowledgment that SingTel is able to provide the Forecasted Network Capacity in the first six (6) month period, but not be able to provide those quantities in accordance with the Forecast timeframes; or
 - (iii) an advice that SingTel is unable to provide the Forecasted Network Capacity in the first six (6) month period as procurement is required.
- 2.5 Where procurement is required in order to meet the Forecast, and SingTel advises the Requesting Licensee pursuant to clause 2.4, SingTel shall seek confirmation of the Forecast. As a general guide, the provisioning time is twelve (12) months from the Forecast Date.
- 2.6 If the Requesting Licensee seeks Network Capacity at a level other than the Forecast level or on a date other than the agreed Forecast Delivery Date, it may make a request to SingTel to study the feasibility of such a request. SingTel shall undertake a feasibility study, and the Requesting Licensee shall pay a fee to SingTel for the conduct of the study in response to the request.
- 2.7 SingTel is under no obligation to provide Network Capacity other than in accordance with the accepted Forecast Capacity requirements and the Forecast Delivery Dates.
- 2.8 Clauses 2.6 and 2.7 are not intended to create a process in substitution for the normal Forecasting process.
- 2.9 The Requesting Licensee agrees that:
- (a) the first six (6) months of each Forecast given by it is a commitment for the full quantity of Network Capacity which SingTel will necessarily supply or install in order to meet that Forecast;
 - (b) it will pay all Charges calculated in accordance with Schedule 9 relating to its failure to utilise the full quantity of Network Capacity in relation to a Forecast; and
 - (c) there shall be no variation in the Forecasts as provided to SingTel.
- 2.10 If, following acceptance of a Forecast, SingTel is unable to provide the Network Capacity or provide the Network Capacity by the Forecast Delivery Date, in whole or part, it must

advise the Requesting Licensee promptly and both Parties must, where practicable, negotiate a new delivery timetable. To assist in this negotiation, SingTel may offer alternatives where available.

2.11 Delivery of Forecast Capacity

2.11.1 The Parties shall use their reasonable endeavours to ensure that its Network Facilities on its side of the relevant POI are provisioned on the Forecast Delivery Date (or as otherwise agreed) and maintained in accordance with the Forecasts.

2.12 Recovery for Over Forecasting

2.12.1 If the Actual Usage by the Requesting Licensee of the Network Capacity is greater than or equal to ninety (90) percent of its Forecast, no over-forecasting Charges shall apply.

2.12.2 If the Actual Usage by the Requesting Licensee of the Network Capacity is less than ninety (90) percent of its Forecast, the Requesting Licensee shall pay the amount calculated in accordance with Schedule 9 until such time as Actual Usage reaches ninety (90) percent.

2.12.3 Where a dispute arises in respect to the Actual Usage under this clause 2.12, the matter will be referred for resolution in accordance with Schedule 11.

3. CALL TYPES

3.1 This clause 3 applies where the Requesting Licensee wishes to extend the use of the Call Termination Service provided by SingTel to a Call Type in respect of which the process has not already been undertaken.

3.2 The Requesting Licensee shall notify SingTel by means of the request form set out in Annex 2B-1 of its request to extend the use of the Call Termination Service to a particular Call Type.

3.3 SingTel shall acknowledge, in writing, receipt of the Requesting Licensee's request under clause 3.2 within five (5) Business Days of its receipt.

3.4 Following receipt of a request form under clause 3.2, SingTel shall assess that request and notify the Requesting Licensee that either:

- (a) the implementation of the request in respect of the requested Call Type involves only Network Conditioning in SingTel'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 SingTel Network, in which case the Negotiation Period shall be ninety (90) Business Days.
- 3.5 The Parties shall forthwith negotiate in good faith the requirements, implementation charges and timetable for extending the use of the Call Termination Service provided by SingTel to the requested Call Type for the Negotiation Period notified in clause 3.4, failing which either Party may commence the Dispute Resolution Procedure in accordance with Schedule 11.
- 3.6 Where the Parties have reached an agreement in accordance with clause 3.5 above, SingTel will commence implementation in accordance with the agreed timetable.
- 3.7 Nothing in this clause 3 requires SingTel to perform any changes in its Network or to commence the supply of Call Termination 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 by the Requesting Licensee.

4. GEOGRAPHIC NUMBER ACTIVATION

- 4.1 Each Party shall provide to the other Party with at least two (2) weeks notice prior to any request to open new Geographic Numbers.
- 4.2 The process for the opening of Geographic Numbers shall be in accordance with the flowchart shown in Annex 2B-5.

5. CHARGING PRINCIPLES

5.1 Termination Charge

- 5.1.1 For any Terminating Interconnected Calls terminating into the SingTel Network, SingTel will collect the Termination Charge from the Requesting Licensee. For the avoidance of doubt, the Call Termination Service is not provided for termination of Calls to Third Party Networks.
- 5.2 Each Party shall, for those Terminating Interconnected Calls for which it is providing (as the case may be) or receiving a Call Termination Service, collect a Call record for each

individual Terminating Interconnected Call whether in bulk or on a CDR basis and process such records in accordance with clause 6.

- 5.3 The Call records collected by SingTel in accordance with this clause 5 shall be the source of the data used by SingTel to invoice for the Call Termination Service it provides under this RIO Agreement.
- 5.4 The calculation of Charges for the Call Termination 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.
- 5.5 Calls shall be Charged 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 minute block.
- 5.6 The Parties shall agree that if a Chargeable Call Duration extends over two or more Charge rate periods, the Call shall be recorded as a single Call in the Charge rate period applying 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.
- 5.7 The Parties shall 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.

6. BILLING VERIFICATION INFORMATION

- 6.1 SingTel shall use its reasonable endeavours to provide Billing Verification Information for the Call Termination Service in accordance with the format set out in Annex 2B-2 within fourteen (14) Calendar Days from the end of each Billing Period, together with the invoice for the Call Termination Service to be issued in accordance with Schedule 9.
- 6.2 In addition to the obligation in clause 6.1 when there is a dispute in relation to invoices issued for the Call Termination Service, the parties shall exchange the Detailed Billing Verification Information set out in Annex 2B-3.
- 6.3 In the event that SingTel cannot record Billing Verification Information for the Call Termination Service due to a system error or other fault, upon the request of SingTel, the Requesting Licensee will provide Billing Verification Information to SingTel.

6.4 Where the Billing Verification Information collected by the Requesting Licensee is not available under clause 6.3, the Parties will negotiate in good faith such alternative Billing arrangements, such as an estimation based on the previous three (3) months Billing Verification Information, appropriate in the circumstances.

ANNEX 2B-1 : REQUEST FORM FOR INTRODUCING CALL TYPE (CALL TERMINATION SERVICE)

1. GENERAL

1.1 Call Type Name and Description

The Requesting Licensee is to provide a general description of Call Type.

1.2 Date to be Introduced (Proposal)

The Requesting Licensee is to indicate the preferred implementation date for access to be available.

2. CALL ORIGINS

The Requesting Licensee is to indicate which Call origins (eg types of Calling subscribers) from its Network the Call Type is required from and which origins from its Network the Call Type is not required from (e.g. Requesting Licensee international incoming Calls, Requesting Licensee operator Calls; Requesting Licensee PSTN/ISDN Calls).

3. NETWORK CONFIGURATION

3.1 Network Configuration/Routing Information

The Requesting Licensee 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 Requesting Licensee is to indicate how traffic to the Call Type will be routed, as well as which Trunk Groups are to be used at the IGSs.

3.3 Other Engineering Requirements

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

4. SIGNALLING

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

5. TESTING

The Requesting Licensee 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 Requesting Licensee is to specify how the customer Billing and settlement is to occur.

6.2 Operator Billing

The Requesting Licensee 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 Requesting Licensee may specify any other requirements for Call Type to be delivered.

ANNEX 2B-2 : BILLING VERIFICATION INFORMATION FOR CALL TERMINATION SERVICE

Call Description	Time Zone	Call Duration (in minutes)	Call Charges (in S\$)
Originating from Requesting Licensee's Network terminating to SingTel's Network (Termination Charge)	Peak	5400	\$xxx.xx
	Off Peak	2700	\$xxx.xx
Total		xxxx	\$xxx.xx

ANNEX 2B-3 : DETAILED BILLING VERIFICATION INFORMATION

1. Billing Verification for SingTel IGS

S/N	ExchID	System	Time Zone	Originating From Requesting Licensee's Network	
				(Terminating to SingTel's Network)	
				Termination Charge payable by Requesting Licensee	
Attempts	Duration (in mins)				
1	IGS1	FBO001	Peak	442	4442
			Off Peak	2334	23345
2	IGS1	FBO002	Peak	442	4442
			Off Peak	2334	23345
3	IGS2	FBO001	Peak	442	4442
			Off Peak	2334	23345
4	IGS2	FBO002	Peak	442	4442
			Off Peak	2334	23345
5	IGS3	FBO001	Peak	442	4442
			Off Peak	2334	23345
6	IGS3	FBO002	Peak	442	4442
			Off Peak	2334	23345
7	IGS4	FBO001	Peak	442	4442
			Off Peak	2334	23345
8	IGS4	FBO002	Peak	442	4442
			Off Peak	2334	23345

2. Billing Verification for SingTel SGS

S/N	ExchID	System	Time Zone	Originating From Requesting Licensee's Network	
				(Terminating to SingTel's Network)	
				Termination Charge payable by Requesting Licensee	
				Attempts	Duration (in mins)
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 2B-4 : FORECASTING OF NETWORK CAPACITY

Traffic Forecasts shall be accordance with clause 2 and in respect of each POI:

Network Capacity Forecast for the Interconnect Link between _____ and _____				
Forecasting Period: From _____ to _____				
(i) Busy Hour Traffic Forecast for Call Origination/Termination/Transit Service (according to Erlang B traffic table):				
	Year 1		Year 2	Year 3
	First 6 months	Subsequent 6 months		
Busy Hour Traffic for Call Origination Services				
Busy Hour Traffic for Call Termination Services				
Busy Hour Traffic for Call Transit Services				
(ii) Volume of Call Origination/Termination/Transit Services (in Call attempts and Call-minutes):				
	Year 1		Year 2	Year 3
	First 6 months	Subsequent 6 months		
Volume of Call Origination Services (in Call attempts)				
Volume of Call Origination Services (in Call minutes)				
Volume of Call Termination Services (in Call attempts)				
Volume of Call Termination Services (in Call minutes)				
Volume of Call Transit Services (in Call attempts)				
Volume of Call Transit Services (in Call minutes)				

ANNEX 2B-5 : PROCEDURE FOR GEOGRAPHIC NUMBER ACTIVATION

