

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 sets out the terms and conditions under which SingTel will provide the Call Origination Service, the Call Termination Service and the Call Transit Service to AAT.

2. 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

1. GENERAL

- 1.1 SingTel will use its reasonable endeavours to supply the Call Origination Service from the SingTel Network in accordance with this Schedule in respect of the Call Types for which the process in clause 4 has been followed (**Originating Interconnected Calls**).
- 1.2 Notwithstanding the Interconnection of the SingTel Network and AAT's Network, SingTel shall have no obligation to provide the Call Origination Service in respect of Calls of any type other than Originating Interconnected Calls.
- 1.3 SingTel will only be required to provide the Call Origination Service to AAT to the extent that AAT has complied with Schedule 1 and this Schedule 2A.

2. FORECASTS

- 2.1 This section applies to Forecasts to be provided by AAT to SingTel in relation to Network Capacity, if AAT reaches a minimum Interconnection Capacity of sixty-three (63) EIs for Interconnection with the SingTel Network.
- 2.2 AAT shall provide to SingTel the Forecasts for Network Capacity required for the provision of the Call Origination Service on or near 1 March and 1 September of each year and in the formats in Annex 2A-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 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 AAT 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 AAT 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 AAT shall pay a fee to SingTel for the conduct of the study in response to the request in accordance with the Charges set out in Schedule 3.
- 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 Paragraphs 2.6 and 2.7 are not intended to create a process in substitution for the normal Forecasting process.
- 2.9 AAT 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 3 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 AAT 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 AAT 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 AAT of the Network Capacity is less than ninety (90) percent of its Forecast, AAT shall pay the amount calculated in accordance with Schedule 3 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 5.

3. CUSTOMER REGISTRATION, BILLING & DEBT

3.1 AAT is responsible for tariffing, Customer billing, collection and bad debts in respect of the provision of telecommunications services to its Customers by AAT using the Call Origination Service.

4. CALL TYPES

4.1 This clause 4 applies where AAT wishes to extend the use of the Call Origination Service provided by SingTel to a Call Type in respect of which the process has not already been undertaken.

4.2 AAT shall notify SingTel 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.

4.3 SingTel shall acknowledge, in writing, receipt of AAT's request under clause 4.2 within five (5) Business Days of its receipt.

4.4 Following receipt of a request form under clause 4.2, SingTel shall assess that request and notify AAT 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.
- 4.5 The Parties shall forthwith negotiate in good faith the requirements, implementation charges and timetable for extending the use of the Call Origination Service provided by SingTel to the requested Call Type for the Negotiation Period notified in clause 4.4, failing which either Party may commence the Dispute Resolution Procedure in accordance with Schedule 5.
- 4.6 Where the Parties have reached an agreement in accordance with clause 4.5 above, SingTel will commence implementation in accordance with the agreed timetable.
- 4.7 Nothing in this clause 4 requires SingTel 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 by AAT.

5. CHARGING PRINCIPLES

5.1 Origination Charge

- 5.1.1 For any Originating Interconnected Calls that originate from the SingTel Network, SingTel will collect the Origination Charge from AAT.
 - 5.1.2 For any Call Origination Service that transits through another Licensee's Network, SingTel will collect the Origination Charge from AAT and recover any Transit Charge from AAT for such Charges that SingTel pays to the another Licensee's Network who provides Call Transit Service.
- 5.2 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 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 Origination Service it provides under this Agreement.
- 5.4 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 3.
- 5.5 Call 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 minute block.
- 5.6 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 applying at the commencement of the Call and the Chargeable Call Duration will be determined by adopting the applicable rate set out in Schedule 3 for the applicable Charging period in which the Call is answered.
- 5.7 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.

6. BILLING VERIFICATION INFORMATION

- 6.1 SingTel 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 3.
- 6.2 In addition to the obligation in clause 6.1 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.
- 6.3 In the event that SingTel cannot record Billing Verification Information for the Call Origination Service due to a system error or other fault, upon the request of SingTel, AAT will provide Billing Verification Information to SingTel.
- 6.4 Where the Billing Verification Information collected by AAT is not available under clause 6.3, the Parties will 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 CALL TYPE (CALL ORIGINATION SERVICE)

1. GENERAL

1.1 Call Type Name and Description

AAT is to provide a general description of Call Type.

1.2 Date to be Introduced (Proposal)

AAT is to indicate the preferred implementation date for access to be available.

2. NUMBER RELATED INFORMATION

AAT 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

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

3.2 Trunk Group (Circuit Assignment)

AAT 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

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

4. SIGNALLING

AAT 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 Call, this is also to be captured in this section.

5. TESTING

AAT 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

AAT is to specify how the Customer Billing and settlement is to occur.

6.2 Operator Billing

AAT 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

AAT may specify any other requirements for Call Type to be delivered.

ANNEX 2A-2 : BILLING VERIFICATION INFORMATION FOR CALL ORIGINATION SERVICE**Billing Information for SingTel**

Call Description	Time Zone	Call duration (in minutes)	Call charges (in S\$)
Originating from SingTel Network terminating to AAT's Network (Origination Charge)	Peak	5400	\$xxx.xx
	Off Peak	2700	\$xxx.xx
Total		xxxx	\$xxx.xx

ANNEX 2A-3 : DETAILED BILLING VERIFICATION INFORMATION

1. Billing Verification for SingTel IGS

S/N	ExchID	System	Time Zone	Terminating to AAT's Network	
				(Originating from SingTel Network)	
				Originating Charge payable by AAT	
				Attempts	Duration (in mins)
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 SingTel SGS

				Terminating to AAT's Network	
				(Originating from SingTel Network)	
				Originating Charge payable by AAT	
S/N	ExchID	System	Time Zone	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 2A-4 : FORECASTING OF NETWORK CAPACITY

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

Network Capacity Forecast for the Interconnection 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)				