

SCHEDULE 2C – MODIFICATION REQUIRED

PLEASE SEE GENERAL REQUIREMENTS APPLICABLE TO SCHEDULE 2C SET OUT IN APPENDIX 1 AND SPECIFIC REQUIREMENTS SET OUT IN IDA'S ANNOTATIONS BELOW.

SCHEDULE 2C

CALL TRANSIT SERVICE

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CONTENTS

1. GENERAL	1
2. FORECASTS	2
3. CALL TYPES	3
4. CHARGING PRINCIPLES	6
5. BILLING VERIFICATION INFORMATION	8
6. CESSATION OF ARRANGEMENTS WITH THIRD PARTY NETWORK OPERATORS	8
ANNEX 2C-1: REQUEST FORM FOR INTRODUCING CALL TYPE (CALL TRANSIT SERVICE)	10
ANNEX 2C-2: BILLING VERIFICATION INFORMATION FOR CALL TRANSIT SERVICE	12
ANNEX 2C-3: DETAILED BILLING VERIFICATION INFORMATION	13
ANNEX 2C-4: FORECASTING OF NETWORK CAPACITY	15
ANNEX 2C-5: THIRD PARTY NETWORKS	16

SCHEDULE 2C

CALL TRANSIT SERVICE

SCHEDULE 2C – GENERAL COMMENTS

IDA directs SingTel to modify Schedule 2C to incorporate the following requirements. SingTel has proposed modifications throughout Schedule 2C to treat calls to access dial-up Internet services as Transit Interconnection Calls and not Terminating Interconnected Calls. These proposed modifications are clearly inconsistent with IDA’s 14 February 2003 decision titled “Review of Interconnection Charging Model for Internet Dial-up Traffic”, in which IDA decided to retain the treatment of classifying internet dial-up traffic as call terminating traffic. If SingTel wants IDA to review the decision of a concluded regulatory proceeding, SingTel must provide IDA with the basis for doing so. It is improper of SingTel to seek a review of concluded decisions in the RIO proceeding. Accordingly, IDA rejects all of the proposed modification by SingTel throughout Schedule 2C to treat calls to access dial-up Internet services as Transit Interconnection Calls and not Terminating Interconnected Calls.

1. GENERAL

CLAUSE 1.1 – MODIFICATION REQUIRED

1.1 The Supplier will supply the Call Transit Service from the Acquirer’s Network through the Supplier’s Network in accordance with clause 11.1 of the main body of the RIO Agreement:

- (a) in respect of the Call Types for which the process in clause 2 has been followed;
- (b) to the Third Party Networks in respect of which the process in clause 2 has been followed and as listed in Annex 2C-5; and
- (c) in respect of the Call Types specified in Annex 2C-6,

(Transit Interconnected Calls).

Please refer to IDA’s general comments to Schedule 2C above. IDA rejects SingTel’s proposed amendments to Clause 1.1.

1.2 Notwithstanding the Interconnection of the SingTel Network and the Requesting Licensee’s Network:

- (a) the Supplier shall not be obliged to accept Calls other than Transit Interconnected Calls under this Schedule;
- (b) the Acquirer will not hand over to the Supplier Calls other than Transit Interconnected Calls under this Schedule; and
- (c) the Supplier shall have no obligation to provide Call Transit Services in respect of Calls to Third Party Networks, other than Transit Interconnected Calls.

1.3 The Supplier will only be required to provide the Call Transit Service to the Acquirer to the extent that the Acquirer has complied with Schedule 1 and this Schedule 2C.

1.4 The Supplier shall only provide Call Transit Services under this Schedule:

- (a) to the Acquirer; and
- (b) in respect of Third Party Networks,

which are Interconnected to the Supplier's Network.

1.5 The Acquirer acknowledges that it is its sole responsibility to agree on Call Origination and Termination arrangements with Third Party Network Operators (including settlement for origination or termination) to whose Network the Call Transit Service is being provided to the Acquirer under this Schedule 2C. The Supplier will not be liable to pay the Third Party Network Operator an amount for origination or termination of the Transit Interconnected Calls on Third Party Networks.

CLAUSE 1.6 – DELETION REQUIRED

1.6 The Acquirer shall provide and maintain the Interconnection Links for the conveyance of Transit Interconnected Calls.

SingTel Comments: New clause 1.6

SingTel has inserted new clause 1.6 to make it clear that the Acquirer is responsible for the provision and maintenance of Interconnection Links.

Irrespective of whether any Acquirer requires the Supplier to provide conveyance of Transit Interconnected Calls, the Supplier would have already established and maintained those Interconnection Links for its own conveyance of traffic to the Third Party Network Operator.

IDA sees no reason why the Acquirer should provide and maintain an Interconnection Link for the Supplier when the latter would have been responsible for such link with the Third Party. In any case, the Supplier is already compensated for its costs of conveying each Transit Interconnected Call by way of a transit call charge. Such charge should comprise the cost of providing and maintaining the Interconnection Link for that Transit Interconnected Call (except in the case where the terminating operator bears the cost of the Interconnection Link to the transit operator). Therefore, IDA rejects SingTel's proposed new Clause 1.6.

2. FORECASTS

- 2.1 This clause applies to Forecasts to be provided by the Acquirer to the Supplier in relation to Network Capacity required for Call Origination and Call Termination arrangements with Third Party Network Operators.
- 2.2 The Acquirer shall provide to the Supplier the Forecasts for Network Capacity required for the provision of the Call Transit Service on or near 1 March and 1 September of each year and in the formats in Annex 2C-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.

3. CALL TYPES

CLAUSE 3.1 – MODIFICATION REQUIRED

- 3.1 This clause applies where the Acquirer wishes to extend the use of the Call Transit Service provided by the Supplier:
- (a) to a Call Type in respect of which the process in this clause 3 has not already been undertaken;
 - (b) to a Third Party Network, including but not limited to an internet service provider, in respect of which the process in this clause 3 has not already been undertaken or has not been specified in Annex 2C-5; or
 - (c) to a Call Type which is not specified in Annex 2C-6.

Please refer to IDA's general comments to Schedule 2C above. IDA rejects SingTel's proposed amendments to Clause 3.1.

SingTel Comments: Clause 3.1(b)

Clarifying amendment only. Please refer to SingTel's comments in relation to Annex 2C-6.

- 3.2 The Acquirer shall notify the Supplier by means of the request form set out in Annex 2C-1 of its request:
- (a) to extend the use of the Call Transit Service to a particular Call Type; or
 - (b) to extend the provision of the Call Transit Service to a particular Third Party Network.

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.

CLAUSE 3.3- MODIFICATION REQUIRED

- 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 or the particular Third Party Network 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.

IDA requires SingTel to modify this Clause 3.3 to incorporate the following requirements:

- (a) ***Clause 3.3 requires the Supplier to assess the request and notify the Acquirer whether the implementation of the request involves any work aside from the Network Conditioning in the Supplier's Network. However, it does not specify the timeframe within which the Supplier must so notify the Acquirer. IDA's position is that this leads to business uncertainty for the Acquirer. In this respect, IDA considers it reasonable to require SingTel to notify the Acquirer within a fixed timeframe of 5 Business Days.***

(b) *IDA is of the view that the existing Negotiation Period specified in Clauses 3.3(a) and 3.3(b) are overly lengthy. Given that the RIO has been effective for almost five years, SingTel should have reasonably sufficient experience in processing and negotiating such requests. IDA considers a period of 15 Business Days (in the case of Clause 3.3(a)) and 30 Business Days (in the case of Clause 3.3(b)) as reasonable.*

3.4 The Parties shall negotiate in good faith the requirements, implementation Charges and timetable for extending the use of the Call Transit Service provided by the Supplier in accordance with the Acquirer's request under clause 3.2 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, the Supplier will commence implementation in accordance with the agreed timetable.

CLAUSE 3.6- MODIFICATION REQUIRED

3.6 The Acquirer shall be liable for the costs incurred by the Supplier in processing and implementing the Acquirer's request:

(a) to extend the use of the Call Transit Service to a particular Call Type; and

(b) to extend the provision of the Call Transit Service to a particular Third Party Network.

SingTel Comments: New clause 3.6

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

IDA recognises that a Supplier may incur certain costs in processing and implementing the Acquirer's request to extend the use of the Call Transit Service to a particular Call Type. However, the Supplier is already imposing a Charge under Schedule 9 and the recovery of all such costs has been built into this Schedule 9 Charge. Accordingly, IDA directs SingTel to modify Clause 3.6 to specifically refer to the Charge under Schedule 9.

3.7 Nothing in this clause 3 requires the Supplier to perform any changes in its Network or to commence the supply of Call Transit Services for a Call Type to a Third Party Network until the Parties have completed the Change Process for that Call Type or Third Party Network and all Network Conditioning Charges have been agreed to by the Acquirer.

CLAUSE 3.8- MODIFICATION REQUIRED

3.8 The Acquirer may, at any time, request the Supplier to cease to supply the Call Transit Service in respect of a Call Type, in which case the Supplier shall cease to supply the Call Transit 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 Transit 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 Termination Service to a particular Call Type; and*
- *to extend the provision of the Call Transit Service to a particular Third Party Network; and*
- *when the Acquirer ceases to acquire the Call Termination Service in respect of a Call Type.*

As the Supplier provides the Call Transit 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 Transit Services to a particular Call Type and to a particular Third Party Network, and the cessation of the Call Transit 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 Transit Service in respect of a Call Type when SingTel is the Acquirer.

Please refer to Paragraph 2 of Appendix 1. IDA disagrees with SingTel's proposal to recover costs associated with ceasing supply of Call Transit Service. Instead, it is reasonable to require each party to bear its own cost arising from the termination. As such, IDA rejects SingTel's proposed amendment to insert the following sentence: "(T)he Acquirer shall be liable for the costs incurred by the Supplier in ceasing the supply of the Call Transit Service in respect of that Call Type".

4. CHARGING PRINCIPLES

- 4.1 The Acquirer must pay Call Transit Charges for all Transit Interconnected Calls that originate on its Network regardless of the payment by the Acquirer to the Third Party Network Operator.
- 4.2 The Supplier shall, for those Transit Interconnected Calls for which it is providing a Call Transit Service, collect a Call record for each individual Transit 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 Transit Service it provides under this RIO Agreement.
- 4.4 The calculation of Charges for Call Transit 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 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 successful or unsuccessful, are chargeable. The Charges shall be accounted in per second block.
- 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 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.

5. BILLING VERIFICATION INFORMATION

- 5.1 The Supplier shall use its reasonable endeavours to provide Billing Verification Information for the Call Transit Service in accordance with the format set out in Annex 2C-2 within fourteen (14) Calendar Days from the end of each Billing Period, together with the invoice for the Call Transit 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 Transit Service, the Parties shall exchange the Detailed Billing Verification Information set out in Annex 2C-3.
- 5.3 In the event that the Supplier cannot record Billing Verification Information for the Call Transit Service due to a system error or other fault, upon the request of the Supplier, the Acquirer will 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 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.

6. CESSATION OF ARRANGEMENTS WITH THIRD PARTY NETWORK OPERATORS

- 6.1 If the Supplier proposes to disconnect its Network from a Third Party Network, then the Supplier will provide the Acquirer with no less than six (6) months notice of the proposed disconnection from the Third Party Network and the Supplier may cease to provide the Call Transit Service to the Third Party Network upon the expiry of the notice save for situations where six (6) months notice is not reasonably practicable. In such situations the Supplier shall provide as much notice as is reasonably practical and may cease to provide the Call Transit Services at such time as specified in the notice.

CLAUSE 6.2 – MODIFICATION REQUIRED

- 6.2 If a Third Party Network Operator disconnects or proposes to disconnect its Network from the Supplier's Network, the Supplier shall notify the Acquirer of the disconnection or proposed disconnection as soon as practicable, subject to confidentiality restrictions, after receiving notice from the Third Party Network Operator of the disconnection or proposed disconnection and the Supplier may cease to provide the Call Transit Service to the Third Party Network at such time as the notice from the Supplier to the Acquirer indicates. The Acquirer shall be liable for the costs incurred by the Supplier in ceasing to provide the Call Transit Service to the Third Party Network.

SingTel Comment: Clause 6.2

Please refer to our comments in relation to clause 3.8 above.

Please refer to IDA's annotations to Clause 3.8 above. IDA rejects SingTel's proposed amendments to Clause 6.2.

ANNEX 2C-1 : REQUEST FORM FOR INTRODUCING CALL TYPE (CALL TRANSIT SERVICE)

1. GENERAL

1.1 Transit Call Request Name and Description

The Acquirer is to provide a general description of Call Type and the Third Party Networks to which the Call Transit Service is sought (eg Acquirer PSTN to XYZ 00X etc).

1.2 Date to be Introduced (Proposal)

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

1.3 Number Related Information

The Acquirer is to specify the service code or number range used for the Call Type as well as the number length.

2. CALL ORIGINS AND DESTINATIONS

The Acquirer is to indicate which origins the Call Type is required from (eg Acquirer international incoming to XYZ 00X; Acquirer to XYZ 00X etc) and destinations (eg Third Party Networks) the Call Type is required to.

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/SGS.

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. BILLING AND CHARGING REQUIREMENT

4.1 Operator Billing

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

ANNEX 2C-2 : BILLING VERIFICATION INFORMATION FOR CALL TRANSIT SERVICE

BILLING INFORMATION FOR THE SUPPLIER

Call Description	Time Zone	Call duration (in secs)	Call charges (in S\$)
Originating Call from the Acquirer's Network via the Supplier's Network (Transit Charge)	Peak	5400	\$xxx.xx
	Off Peak	2700	\$xxx.xx
Total		xxxx	\$xxx.xx

ANNEX 2C-3 : DETAILED BILLING VERIFICATION INFORMATION

1. Billing Verification for Supplier IGS

S/N	ExchID	System	Time Zone	Originating From the Acquirer's Network	
				(Transit via the Supplier's Network)	
				X-Charge payable by the 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	Originating From the Acquirer's Network	
				(Transit via the Supplier's Network)	
				X-Charge payable by the 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 2C-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 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 Transit Services				
(ii) Volume of Call Transit Services (in call attempts and call-minutes):				
	Year 1		Year 2	Year 3
	First 6 months	Subsequent 6 months		
Volume of Call Transit Services (in Call attempts)				
Volume of Call Transit Services (in call minutes)				

ANNEX 2C-5 – THIRD PARTY NETWORKS

To be provided at a later time.

PROPOSED NEW ANNEX 2C-6 – REJECTION

Please refer to IDA’s general comments to Schedule 2B above. IDA rejects SingTel’s proposal to include a new Annex 2C-6.

ANNEX 2C-6 – LIST OF CALL TYPES FOR TRANSIT CALL SERVICE

SingTel-Originated Internet Dial-Up calls

SingTel Comments: New Annex 2C-6

SingTel has previously submitted that Calls to access dial-up internet services cannot be treated as Terminating Interconnected Calls, as such a categorisation would result in the originating operator being unable to recover the costs associated with providing such Calls. Furthermore, the operator which interconnects the Call from originating operator to the Internet Service Provider merely acts as the transit operator in conveying the Internet dial-up Call from the originating operator to the Internet Service Provider. Hence, Calls to access dial-up internet services are to be treated as Transit Interconnected Calls and as such are to be subject to Schedule 2C.