

APPENDIX 11

REQUIRED MODIFICATIONS TO SCHEDULE 9 OF SINGTEL'S RIO

SCHEDULE 9 – MODIFICATION REQUIRED

PLEASE SEE GENERAL REQUIREMENTS APPLICABLE TO SCHEDULE 9 SET OUT IN APPENDIX 1 AND SPECIFIC REQUIREMENTS SET OUT IN IDA'S ANNOTATIONS BELOW.

SCHEDULE 9 GENERALLY – MODIFICATION REQUIRED

IDA directs SingTel to modify Schedule 9 to incorporate the following general requirements:

- (a) IDA notes that certain clauses contained in each section relating to each specific schedule in Schedule 9 either duplicate provisions of, or are substantive provisions that should be contained in the relevant schedules. Accordingly, IDA directs SingTel to modify Schedule 9 by:***
 - (i) deleting such duplicate provisions in each of these sections of Schedule 9; and***
 - (ii) moving such substantive provisions in each of these sections of Schedule 9 to the relevant schedules (for example, without limitation, in the section relating Schedule 3, Clauses 3.1.2 , 3.2.2, 3.4.2 and 3.6.2.).***
- (b) Consequential amendments to the provisions in Schedule 9 necessitated by IDA's requirements to move and merge (as the case may be) Schedules 5B, 5C, 8A and 8B.***

SCHEDULE 9

CHARGES

**SCHEDULE 9
CHARGES**

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SCHEDULE 9 CHARGES – GENERAL CONDITIONS

GENERAL:

- (a) The Parties agree to pay the following Charges where applicable in accordance with clauses 5 & 6 of the main body of this RIO Agreement, and the Billing and settlement requirements set out in Schedule 10.
- (b) Except where otherwise indicated, if Charges are expressed to be estimates in this Schedule or elsewhere in this RIO Agreement, SingTel reserves the right to adjust these Charges from time to time subject to approval from the Authority, and the Parties agree to pay the Charges as adjusted from time to time.
- (c) If a Party incurs costs in addition to these Charges, if applicable, in providing IRS under this RIO Agreement, that Party reserves the right to recover its costs in addition to the Charges below subject to approval from the Authority, and the other Party agrees to pay such costs.
- (d) Where SingTel has to determine Charges payable by the Requesting Licensee in this Schedule 9 on a one-time and case-by-case basis, SingTel shall determine the Charges in accordance with the provisions of this RIO Agreement. Such Charges as determined by SingTel are conditionally approved by the Authority, unless the Requesting Licensee disputes such Charges, in which case SingTel must seek the Authority's approval for such Charges.

SCHEDULE 1 – PHYSICAL AND VIRTUAL INTERCONNECTION

1.1 Interconnect Testing

In the provision of SingTel’s Facilities and engineering support for the Interconnect Testing and the eventual connection to SingTel Network, the Requesting Licensee shall pay SingTel the Application Charges for requesting Interconnection Testing and the testing Charges based on the testing duration inclusive of any extension period, as set out below.

DESCRIPTION	CHARGES (\$\$)
Testing Charge per day (based on testing duration)	
Application Charge (per application)	

1.1.1 Extension of Interconnect Testing

The Charges for any testing period will be inclusive of any extension requested by the Requesting Licensee.

1.1.2 Call fees during Interconnect Testing

All Calls made during Interconnect Testing shall be chargeable to the Requesting Licensee at the applicable commercial rates for the conveyance of Calls in accordance with Schedules 2A, 2B & 2C and as outlined below.

1.1.3 Cancellation of Interconnect Testing

Any request for cancellation of Interconnect Testing shall be made in writing to SingTel and the Requesting Licensee shall pay SingTel the cancellation Charges as follows, depending on the number of Calendar Days (from the receipt of the cancellation notice to the date of commencement of testing):

Number of days:	% of Testing fee to be paid:
<7	100%
7-13	80%
14-20	35%
>21	20%

1.1.4 Delay or cancellation of Interconnect Testing

The Requesting Licensee is liable for all Charges that may arise from any delay or cancellation of Interconnect Testing if the Interconnection agreement is not executed prior to the test.

1.1.5 Completion or termination of Interconnect Testing

In the event that Interconnect Testing is completed or is terminated by the Requesting Licensee before the last day of the agreed testing period, the Requesting Licensee shall pay SingTel the Charges for the testing duration up to and including the day on which testing was completed or terminated and such other reasonable costs as may be incurred by SingTel for early completion of the Interconnect Testing.

1.2 Recovery for over-forecasting

1.2.1 The cost recovery for over-forecasting shall be based on the number of 2Mbps circuits augmented in the Interconnect Link and SingTel Network to meet the committed Forecast.

1.2.2 The Charges shall be as follows:

Per augmented 2Mbps trunk for Origination Call Type per day =

Per augmented 2Mbps trunk for Termination Call Type per day =

Per augmented 2Mbps trunk for Transit Call Type per day =

2. SCHEDULE 2 – CALL ORIGINATION, TERMINATION AND TRANSIT

2.1 General

2.1.1 The below rates shall be based on circuit utilisation from the time the circuit is seized until the time the circuit is released. The Charges shall be accounted in per second blocks. All Calls whether successful or unsuccessful are chargeable.

2.1.2 The “Off-Peak Hour Rate” is applicable to the period of time between 1800 hours and 0800 hours, Monday to Friday and all day Saturday to Sunday inclusive, and gazetted public holidays. The “Peak Hour Rate” is applicable to the period of time between 0800 hours and 1800 hours, Monday to Friday inclusive, but not including gazetted public holidays.

SCHEDULE 2A – ORIGINATION

2.2 Call Charges payable by the Parties for Call Origination Service shall be as follows for all Calls:

DESCRIPTION	CHARGES (\$\$)
<p>IGS/SGS Origination Charge per call minute</p> <p>Peak Hour Rate</p> <p>Off-Peak Hour Rate</p>	
<p>Integrated IGS Origination Charge per call minute</p> <p>Peak Hour Rate</p> <p>Off-Peak Hour Rate</p>	
<p>Implementation Charge for Call Type request</p> <p>Per Application</p> <p>Per IGS</p> <p>Per SGS or Integrated IGS (with Local Switch functionality)</p> <p>Per Local Switch</p>	

2.3 For any Call Origination Service that terminates directly to the Acquirer, the Supplier will collect the Origination Charge directly from the Acquirer.

SCHEDULE 2B – TERMINATION

2.4 Call Charges payable by the Parties for Call Termination Service shall be as follows for all Calls :

DESCRIPTION	CHARGES (\$\$)
<p>IGS/SGS Termination Charge per call minute</p> <p>Peak Hour Rate</p> <p>Off-Peak Hour Rate</p>	
<p>Integrated IGS Termination Charge per call minute</p> <p>Peak Hour Rate</p> <p>Off-Peak Hour Rate</p>	
<p>Implementation Charge for Call Type request</p> <p>Per Application</p> <p>Per IGS</p> <p>Per SGS or Integrated IGS (with Local Switch functionality)</p> <p>Per Local Switch</p>	

SCHEDULE 2C – TRANSIT

2.5 Call Charges payable by the Parties for Call Transit Service shall be as follows for all Calls:

DESCRIPTION	CHARGES (\$\$)
IGS/SGS Transit Charge per call minute Peak Hour Rate Off-Peak Hour Rate	
Implementation Charge for Call Type request Per Application Per IGS Per SGS or Integrated IGS (with Local Switch functionality)	

3. SCHEDULE 3 – UNBUNDLED NETWORK ELEMENTS

SCHEDULE 3A – LICENSING OF LOCAL LOOP/SUB LOOP

3.1 General

3.1.1 The Requesting Licensee shall pay SingTel the Charges listed in this Schedule and any other Charges incurred in the provision of Local Loop or Sub Loop and works performed by SingTel.

3.1.2 If, at any time during the licence period, the Authority notifies Licensees that the rates and Charges determined by it no longer apply in circumstances or areas where Local Loop or Sub Loop is being licensed, then SingTel may give one (1) month's written notice of a change in the rates and Charges. Within ten (10) Business Days of receiving SingTel's written notice, the Requesting Licensee shall elect in writing to SingTel that the Requesting Licensee wishes:

- (a) to terminate the licence, and the licence shall terminate upon the expiry of ten (10) Business Days thereafter, or such other period as the Parties may agree; or
- (b) to continue the period of licence at such new rates and Charges, and the licence shall so continue.

Charges

3.1.3 Prices for licensing of Local Loop are as follows:

DESCRIPTION	CHARGES (S\$)
<p>Administration fees (per address)</p> <p>Per order</p> <p>Per loop (leasing & jumpering at Exchange MDF)</p> <p>Cancellation Charge (per loop)</p> <p>Cancellation Charge (per subsequent loop at same address)</p>	
<p>Local Loop (per loop per year)</p> <p>Central Business District</p> <p>Other Commercial Areas</p> <p>Residential High Rise</p> <p>Residential Landed</p>	
<p>Fees for SingTel Build Local Loop to license (per address)</p> <p>Per Order</p> <p>Cancellation Charge</p> <p>Project Study</p>	
<p>SingTel's Jumpering Work at Building MDF (if Requesting Licensee opts to allow SingTel to perform the jumpering work)</p> <p>Per loop</p> <p>Per subsequent loop at same address</p>	

<p>Fault Reporting</p> <p>Charges for fault found to be with the Reporting Party (per activation per loop)</p>	
<p>SingTel Exchange Related Information</p> <p>Application Fee</p> <p>Availability of SingTel's Copper Local Loops at a Local Exchange</p> <p>Availability of SingTel's local loop served by a local exchange in terms of the percentage of available copper local loops within the boundary of each local exchange</p> <p>Availability of SingTel's Copper Sub Loops (Feeder) at a Building MDF/Outdoor Cabinet</p> <p>Availability of SingTel's sub loop (feeder) served at a Building MDF/Outdoor Cabinet in terms of the percentage of available sub loops (feeder) at Building MDF/Outdoor Cabinet</p> <p>Availability of SingTel's Copper Sub Loops (Distribution) at a Building MDF/Outdoor Cabinet</p> <p>Availability of SingTel's sub loop (distribution) served at a Building MDF/Outdoor Cabinet in terms of the percentage of available sub loops (distribution) at Building MDF/Outdoor Cabinet</p>	
<p>Availability of SingTel's Copper Sub Loops (Distribution) at a Distribution Point</p> <p>Availability of SingTel's sub loop (distribution) served at a Distribution Point in terms of the percentage of available sub loops (distribution) at Distribution Point</p>	

3.1.4 Prices for licensing of Sub Loop are as follows:

DESCRIPTION	CHARGES (\$\$)	
	Feeder	Distribution
<p>Administration fees (per address)</p> <p>Per order</p> <p>Per Sub Loop (includes jumpering work at Exchange MDF for Loop Feeder)</p> <p>Cancellation Charge (per Sub Loop)</p> <p>Cancellation Charge (per subsequent Sub Loop at same address)</p>		
<p>Sub Loop (per Sub Loop per year)</p> <p>Central Business District</p> <p>Other Commercial Areas</p> <p>Residential High Rise</p> <p>Residential Landed</p>		
<p>Fees for SingTel Build Sub Loop to license (per address)</p> <p>Per Order</p> <p>Cancellation Charge</p> <p>Project Study</p>		
<p>SingTel's Jumpering Work at Building MDF (if Requesting Licensee opts to allow SingTel to perform the jumpering work)</p> <p>Per Sub Loop</p> <p>Per subsequent Sub Loop at same address</p>		
<p>Fault Reporting</p> <p>Charges for fault found to be with the Reporting Party (per activation per Sub Loop)</p>		

SCHEDULE 3B - LINE SHARING

3.2 General

3.2.1 The Requesting Licensee shall be liable to pay and shall pay to SingTel the Charges listed in this Schedule and any other Charges incurred in the provision of Line Sharing and works performed by SingTel.

3.2.2 If, at any time during the licence period, the Authority notifies Licensees that the rates and Charges determined by it no longer apply in circumstances or areas where Line Sharing is being provided, then SingTel may give one (1) month's written notice of a change in the rates and Charges. Within ten (10) Business Days of receiving SingTel's written notice, the Requesting Licensee shall elect in writing to SingTel that the Requesting Licensee wishes:

- (a) to terminate the Line Sharing and the Line Sharing shall terminate upon the expiry of ten (10) Business Days thereafter or such other period as the Parties may agree; or
- (b) to continue the period of Line Sharing at such new rates and Charges and the sharing shall so continue.

3.3 **Charges**

3.3.1 Prices for Line Sharing are as follows:

DESCRIPTION	CHARGES (\$\$)
<p>Administration fees (per address)</p> <p>Per order</p> <p>Per line</p> <p>Cancellation Charge (per line)</p>	
<p>Line Sharing (per line per year)</p> <p>Central Business District</p> <p>Other Commercial Areas</p> <p>Residential High Rise</p> <p>Residential Landed</p>	
<p>Request for Jumpering Work (per address)</p> <p>Per order</p>	
<p>Jumpering for Line Sharing (per line)</p> <p>Jumpering at Exchange MDF</p> <p>Subsequent termination of Line Sharing at Exchange MDF</p> <p>Jumpering at Building MDF</p> <p>Subsequent termination of Line Sharing at Building MDF</p>	
<p>Fault Reporting</p> <p>Charges for fault found to be within the Reporting Party's Network (per activation per line):</p> <p>For work to be performed at both Exchange MDF and Building MDF</p> <p>For work to be performed at Building MDF only.</p>	

SCHEDULE 3C - SALE OF INTERNAL WIRING

3.4 General

- 3.4.1 The Requesting Licensee shall submit its application for a pair of Internal Wiring to SingTel using the prescribed form in Schedule 3C within three (3) Business Days of its use of SingTel’s Internal Wiring.
- 3.4.2 The Requesting Licensee shall pay the application fee to SingTel in accordance with this Schedule.
- 3.4.3 If, at any time the Authority notifies Licensees that the rates and Charges determined by it no longer apply in circumstances, then SingTel may give one (1) month’s written notice of a change in the rates and Charges. The new rates and Charges would be applicable one (1) month from the notice.

3.5 Charges

3.5.1 Charges for Internal Wiring are as follows:

DESCRIPTION	CHARGES (S\$)
Internal Wiring Per pair	
Fault Reporting Charges for fault found to be caused by Requesting Licensee’s use of Internal Wiring (per pair)	
Fault Restoration Damage and/or modification to Internal Wiring or the associated equipment	

3.5.2 Other Charges:

While the Requesting Licensee is accessing SingTel’s Internal Wiring, the Requesting Licensee shall not do or permit to do anything which will result or may result in damage and/or modification to the Internal Wiring or the associated

equipment. Failing which SingTel shall restore the Internal Wiring and the Requesting Licensee shall pay SingTel the Charges for the works carried out.

SCHEDULE 3D – LICENSING OF BUILDING MDF DISTRIBUTION FRAME

3.6 General

- 3.6.1 The Requesting Licensee shall be liable to pay and shall pay to SingTel the Charges listed in this Schedule and any other Charges incurred in the provision of SingTel's Building MDF Distribution Frame Mountings.
- 3.6.2 If at any time during the licence period, the Authority notifies Licensees that the rates and Charges determined by it no longer apply in circumstances or areas where Distribution Frame Mountings are being provided, then SingTel may give one (1) month's written notice of a change in the rates and Charges. Within ten (10) Business Days of receiving SingTel's written notice, the Requesting Licensee shall elect in writing to SingTel that the Requesting Licensee wishes:
- (a) to terminate the Distribution Frame Mounting and the Distribution Frame Mounting shall terminate upon the expiry of ten (10) Business Days thereafter or such other period as the Parties may agree;
 - (b) to continue the period of Distribution Frame Mounting at such new rates and Charges and the licence shall so continue.

3.7 **Charges**

3.7.1 Prices for Distribution Frame Mountings are as follows:

DESCRIPTION	CHARGES (S\$)
Administration fees for licensing only (per Distribution Frame Mounting) Application Charge Cancellation Charge	
Distribution Frame (per Distribution Frame Mounting per year) Central Business District Other Commercial Areas Residential High Rise Residential Landed	
Fees for SingTel Build Distribution Frame Vertical to license (per Distribution Frame Vertical) Application Charge Cancellation Charge Project Study	

SCHEDULE 3E – LICENSING OF OUTDOOR CABINET DISTRIBUTION FRAME

MODIFICATION REQUIRED

3.8 General

3.8.1 The Requesting Licensee shall be liable to pay and shall pay to SingTel the Charges listed in Schedule 3E and any other Charges incurred in the provision of SingTel’s Outdoor Cabinet Distribution Frame Mountings.

For clarity, the reference to “the Charges list in Schedule 3E” must be amended to refer to “the Charges listed in this Schedule”.

3.8.2 If at any time during the licence period, the Authority notifies Licensees that the rates and Charges determined by it no longer apply in circumstances or areas where Outdoor Cabinet Distribution Frame Mountings are being provided, then SingTel may give one (1) month’s written notice of a change in the rates and Charges. Within ten (10) Business Days of receiving SingTel’s written notice, the Requesting Licensee shall elect in writing to SingTel that the Requesting Licensee wishes:

- (a) to terminate the Outdoor Cabinet Distribution Frame Mounting and the Distribution Frame Mounting shall terminate upon the expiry of ten (10) Business Days thereafter or such other period as the Parties may agree;
- (b) to continue the period of Outdoor Cabinet Distribution Frame Mounting at such new rates and Charges and the licence shall so continue.

3.9 Charges

3.9.1 Prices for Outdoor Cabinet Distribution Frame Mountings are as follows:

DESCRIPTION	CHARGES (\$\$)
Ordering And Provisioning	
Application Fee (Per Outdoor cabinet site)	
Cancellation Fee (Per Outdoor cabinet site)	
Project Study (Per Outdoor cabinet site)	

<p>Site Preparation & Installation</p> <p>Site Preparation Work –for M&E works etc</p> <p>Fire Safety Bureau Charges</p>	
<p>Building & Construction Authority Charges</p> <p>Construction of Connection Duct – 1 metre of 110mm diameter Connection Duct</p> <p>Provision, installation and termination of Subscriber Tie Cables, Terminal unit, Terminal block</p>	
<p>Usage / License Charges</p> <p>Outdoor Cabinet Distribution Frame (per Outdoor Cabinet Distribution Frame Mounting per year)</p> <p>Central Business District</p> <p>Other Commercial Areas</p> <p>Residential High Rise</p> <p>Residential Landed</p>	
<p>Lead-in Ducts (per duct metre per year)</p>	
<p>Manpower Cost</p> <ul style="list-style-type: none"> - Supervision of work during installation - Site Inspection - Final Inspection 	
<p>Application for Physical Access (Per Lead-in Manhole)</p>	
<p>Recovery</p> <p>Recovery of Equipment, Termination Units, blocks M&E works (where applicable) upon termination of Outdoor Cabinet Distribution Frame Mounting</p>	

SCHEDULE 4 – UNBUNDLED NETWORK SERVICES

SCHEDULE 4A – EMERGENCY SERVICES

4. GENERAL

4.1.1 The Parties shall pay the Charges for the conveyance of Emergency Calls handed over at the Interconnect Gateway Switch as provided in Schedule 4A.

4.1.2 The below rate shall be based on the duration of use of the circuit and for the Call Duration of use of a circuit shall start at the time the circuit used for the Emergency Call is seized and end at the time the circuit is released. All Emergency Calls, regardless of successful or unsuccessful, are chargeable. The Charges shall be accounted in per second block.

4.1.3 “Off-Peak Hour Rate” is applicable to the period of time between 1800 hours and 0800 hours, Monday to Friday and all day Saturday to Sunday inclusive, and gazetted public holidays.

4.1.4 “Peak Hour Rate” is applicable to the period of time between 0800 hours and 1800 hours, Monday to Friday inclusive, but not including gazetted public holidays.

4.2 Charges

4.2.1 Call Charges payable by the Parties for the conveyance of Emergency Calls shall be as follows:

DESCRIPTION	CHARGES (\$\$)
Emergency Calls Charges per call minute	
Peak Hour Rate	
Off-Peak Hour Rate	

Implementation Charge for Call Type request Per Application Per IGS Per SGS or Integrated IGS (with Local Switch functionality)	
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SCHEDULE 4B – SUBMARINE CABLE CONNECTION SERVICE

4.3 General

4.3.1 The Requesting Licensee shall be liable to pay and shall pay SingTel the relevant Charges for the Connection Service as provided in Schedule 4B. A link is referred to as a fibre pair or co-axial cable pair.

4.3.2 Application Charge

The Requesting Licensee shall pay to SingTel the Application Charge for processing each Request for Connection Service (including all requests that are rejected). The Application Charge shall be applied if the Request for Connection Service is not approved by SingTel or prematurely cancelled or terminated by the Requesting Licensee.

4.3.3 Activation Charge

The Requesting Licensee shall pay to SingTel a one-time Activation Charge for each link activation (for service or protection links) or each capacity activation or each concurrent link/capacity activation.

4.3.4 Deactivation Charge

The Requesting Licensee shall pay to SingTel a one-time Deactivation Charge for each link deactivation (for service or protection links) or each capacity deactivation or each concurrent link/capacity deactivation.

4.3.5 Annual Charge for Group A Cable Systems

The Requesting Licensee shall pay to SingTel the recurring Annual Charge for the use of each link activated (for service or protection links).

4.3.6 Annual Charge for Group B Cable Systems

The Requesting Licensee shall pay to SingTel the recurring Annual Charge for the use of each STM-1 (or VC4) Input Port capacity. Additionally, the Requesting Licensee shall pay the recurring Annual Charge for the use of each

STM-1 (or VC4) Output Port capacity or the lower rate output port capacity such as VC3 or VC12 capacity.

4.4 Charges

Charges payable by the Requesting Licensee for the Submarine Cable Connection Services are as follows:

DESCRIPTION	CHARGES (\$\$)
<p>Application Charge per Request</p> <ul style="list-style-type: none"> - Link Activation - Capacity Activation - Link and Capacity Activation - Link Deactivation - Capacity Deactivation - Link and Capacity Deactivation 	
<p>Activation Charge</p> <ul style="list-style-type: none"> - Link Activation per link activated (for each service or protection link) - Capacity Activation per capacity activated - Link and Capacity Activation per link and capacity activated 	
<p>Deactivation Charge</p> <ul style="list-style-type: none"> - Link Deactivation per link deactivated (for each service or protection link) - Capacity Deactivation per capacity deactivated - Link and Capacity Deactivation per link and capacity deactivated 	
<p>Annual Charge for Group A Cable Systems</p> <ul style="list-style-type: none"> - per link activated (for each service or protection link) 	
<p>Annual Charge for Group B Cable Systems</p> <ul style="list-style-type: none"> - STM1 or VC4 (per Input Port) 	

DESCRIPTION	CHARGES (\$)
<ul style="list-style-type: none">- STM1 or VC4 (per Output Port)- VC3 (per Output Port)- VC12 (per Output Port)	

5. SCHEDULE 5 – ESSENTIAL SUPPORT FACILITIES

SCHEDULE 5A – LICENSING OF LEAD-IN DUCT AND ASSOCIATED LEAD-IN MANHOLES

5.1 General

5.1.1 Following the grant by SingTel of Final Approval under clause 5.3 of Schedule 5A, SingTel shall construct the Connection Duct within twenty-five (25) Business Days or such longer time if SingTel notifies the Requesting Licensee, and the Requesting Licensee shall pay the Charges incurred in the construction of Connection Duct.

5.1.2 The Charges that SingTel would incur in the provision of Connection Duct includes:

- (a) laying of 110mm duct(s) (“Connection Duct”) of one metre away from the Lead-in Manhole;
- (b) printing of site plan;
- (c) constructing duct seal for the Connection Duct(s);
- (d) share of costs of Lead-in Manhole; and
- (e) labour costs.

5.2 Application Fee

5.2.1 The Requesting Licensee shall pay the application fee regardless of the outcome of the application.

5.3 Project Study

5.3.1 SingTel shall proceed with a Project Study which would include a site survey conducted by SingTel to establish the availability of Lead-in Duct and its associated Lead-in Manhole, and the Requesting Licensee shall pay the Charges incurred in conducting the Project Study.

5.4 Cancellation Fee

5.4.1 If the Requesting Licensee cancels or postpones the cable installation date, it shall pay SingTel a cancellation Charge and any other Charges for the work that SingTel incurred up to the point the request is cancelled.

5.4.2 The Requesting Licensee shall re-apply for a new request for cable installation work in accordance with this clause.

5.5 Request for Physical Access

5.5.1 The Requesting Licensee shall pay SingTel the Charges for processing and administering the request for physical access.

5.6 Unauthorised access to SingTel's Underground Plant

5.6.1 Where SingTel approves the order, after having identified that the Requesting Licensee has accessed its Lead-in Duct and its associated Lead-in Manhole without having obtained approval in accordance with Schedule 5A of this RIO Agreement, the Requesting Licensee must pay, within ten (10) Business Days from the date of approval, SingTel's reasonable costs incurred in the investigation of the unauthorised access, and the Charges in arrears calculated from the date of access (including the date of deemed access).

5.6.2 Where SingTel rejects the request for access, after having identified that the Requesting Licensee has accessed its lead-in Duct and its associated lead-in Manhole without having obtained approval in accordance with Schedule 5A of this RIO Agreement, the Requesting Licensee must pay, within ten (10) Business Days from the date of rejection, SingTel's reasonable costs incurred in the investigation of the authorised access, and the Charges in arrears calculated from the date of access (including the date of deemed access).

5.7 Expiry of Term of licence

5.7.1 Upon expiry or termination of the licence in respect of the Building Lead-in Duct and its associated Lead-in Manhole and the removal of the Requesting Licensee's Underground Equipment, SingTel shall verify and restore the state of the Building Lead-in Duct and its associated Lead-in Manhole. The Requesting Licensee shall pay all reasonable costs incurred by SingTel in verifying and

restoring the state of the Building Lead-in Duct and its associated Lead-in Manhole.

5.8 Charges

5.8.1 Prices of Lead-in Ducts and associated Lead-in Manholes are as follows:

DESCRIPTION	CHARGES (\$\$)
Application Charge (excluding site survey Charges) Per Lead-in Manhole Cancellation Charge (per Lead-in Manhole)	
Lead-in Duct (per Lead-in Duct per metre per year) Central Business District Other Commercial Areas Residential High Rise Residential Landed	
Project Study Charge (per Lead-in Manhole) Project Study Charge	
Construction of Connection Duct (per Connection Duct) - 1m of 110mm diameter Connection Duct	
Application for Physical Access (Per Lead-in Manhole)	
Miscellaneous Charges Site survey/site meeting – Half Day Site survey/site meeting – Full Day Contractor Cost for Manhole Site Survey – Half Day Contractor Cost for Manhole Site Survey – Full Day	

DESCRIPTION	CHARGES (\$\$)
Termination Charges (per Lead-in Manhole) Termination Charge	

SCHEDULE 5B – LICENCE OF TOWER SPACE AND CO-LOCATION AT TOWER SITES

5.9 General

5.9.1 Upon successful application of a request for tower space, SingTel shall:

- (a) proceed with a Project Study which would include a site survey conducted by SingTel to establish the availability of the Tower Space; and
- (b) the Requesting Licensee shall pay the Charges incurred in conducting the Project Study.

5.9.2

5.9.3 Charges

DESCRIPTION	CHARGES (\$\$)
<p>ORDERING AND PROVISIONING</p> <p>Application Fee (Per Tower Site)</p> <p>Project Study (Per Tower Site)</p>	
<p>SITE PREPARATION & INSTALLATION</p> <p>Site Preparation Work – for M&E works etc</p> <p>Fire Safety Bureau Charges</p> <p>Building & Construction Authority Charges</p>	
<p>Construction of Connection Duct (Per Connection Duct) – 1 metre of 110mm diameter Connection Duct</p>	
<p>Installation of Optical Fibre</p> <p>Provision, installation and termination of Power and Earth comms cable</p>	
<p>USAGE / LICENSE CHARGES</p> <p>Co-Location Space (minimum of 1 square metre to maximum 10 square metre) per square metre per year</p>	

DESCRIPTION	CHARGES (S\$)
<p>Power (minimum of 13 fused amp for AC and minimum of 20 fused amp for DC) per fused amp per year</p> <p>Tower Space per radio transmission or reception equipment mounting per month</p> <p>Lead-in Ducts (per duct metre per year)</p>	
<p>MANPOWER COST</p> <ul style="list-style-type: none"> - Supervision of work during installation - Site Inspection - Final Inspection - Escort Service for Physical Access - Application for Physical Access - Administrative fee for Updating master list 	
<p>RECOVERY</p> <p>Recovery of Equipment, Cable Trays, M&E works (where applicable) upon termination of access to Tower Space or Co-Location.</p>	

5.10 Provisioning of Tower Space

5.10.1 The Requesting Licensee shall pay for the Charges reasonably incurred by SingTel for the provisioning of Tower Space.

5.11 Construction of Connection Duct

5.11.1 The Requesting Licensee shall pay the Charges incurred in the construction of Connection Duct.

6. SCHEDULE 6 - NUMBER PORTABILITY

6.1 The RNO shall pay DNO the following Charges for the provisioning of Number Portability Services:

- (a) Administration Charges
- (b) Conveyance Charges

6.2 Administration Charges

6.2.1 The DNO shall recover the Administration Charges from the RNO for the provisioning of Number Portability Service.

6.2.2 The Administration Charge payable to the DNO is a one-time Charge for the performance of the following tasks:

- (a) Processing of NP Applications;
- (b) Processing of NP termination applications; and
- (c) Processing of NP withdrawal applications.

6.2.3 Where there is an application for termination of Number Portability Service with return to DNO (Number Portability Service Port Back Application), the original RNO shall recover the one-time Administration Charge from the original DNO for the processing of the application.

6.2.4 Unless otherwise agreed, Administration Charges shall be consolidated on a monthly basis and the consolidated invoice issued in accordance with Schedule 9 unless indicated otherwise in Schedule 6.

6.2.5 Administration Charges

DESCRIPTION	CHARGES (\$\$)
Number Portability Service Application Charge	
Number Portability Service Withdrawal Charge	
Number Portability Service Termination Charge	
Number Portability Service Port Back Application Charge	

6.2.6 Subsequent Portability per Ported Number

DESCRIPTION	CHARGES (\$\$)
Application	
Database Updates	

6.3 Conveyance Charges

6.3.1 The Conveyance Charge is a recurrent Charge that the DNO can recover from the RNO.

6.3.2 The Conveyance Charge shall take effect on the Effective Date at which Number Portability Service is provided and shall cease to apply from the termination date of the Number Portability Service.

6.3.3 The Conveyance Charge is to be levied on a per IN dip basis for each Ported Number.

6.3.4 Each Party shall for the Conveyance Charge, collect for each query made to the IN for each Ported Number in which Number Portability Service is provided to the other Party, a transaction record for processing.

6.3.5 The call records collected in accordance with clause 6.3.4 shall be the source of data used by each Party to invoice for the Conveyance Charges for Number Portability Service it provides to the other Party under Schedule 6.

- 6.3.6 Conveyance Charges shall be dealt with in accordance with Schedule 9 unless indicated otherwise in this Schedule 6.
- 6.3.7 All Conveyance Charges shall be billed in the Billing Period/Financial Year in which those IN queries were made.
- 6.3.8 The DNO shall continue to bill the RNO the Conveyance Charges until such time the Number Portability Service is terminated to the telephone number as requested by RNO.
- 6.3.9 The Charges applicable under this RIO Agreement are as follows:

DESCRIPTION	CHARGES (\$\$)
Conveyance Charge per Database dip	

SCHEDULE 7 – GENERAL COMMENTS

The Charges for FLLCs and TLLCs, ordered under Schedule 7 of the RIO Agreement, will expire in April and October 2006 depending on whether they are located within or outside the CBD. Thereafter, cost-based prices will apply. One commenter was concerned that these Charges have yet to be made known. IDA recognises the importance of the timely publication of these Charges and assures the industry that these Charges will be published before the expiry of Schedule 7.

7. SCHEDULE 7 – WHOLESALE SERVICES

SCHEDULE 7A – WHOLESALE LOCAL LEASED CIRCUITS (FULL CIRCUITS) SERVICE

7.1 General

7.1.1 The Requesting Licensee shall be liable to pay and shall pay SingTel the relevant Charges for the Wholesale Local Leased Circuits (Full Circuits) Service as provided in Schedule 7A for point-to-point (**PTP**) circuits and/or point-to-multipoint (**PTMP**) circuits.

7.1.2 Application Charge

The Requesting Licensee shall pay to SingTel the Application Charge for processing each Wholesale Local Leased Circuits (Full Circuits) Service Activation Request. The Application Charge shall consist of a Per Order Charge for processing the request and a Per Circuit Charge for the circuit requested. The Application Charge shall be waived if the Service requested in the application (after having received SingTel's in-principle approval) is provisioned. However, the Application Charge shall be applied if the Wholesale Local Leased Circuits (Full Circuit) Service Activation Request is not approved by SingTel or prematurely cancelled or terminated by the Requesting Licensee. Where a single Wholesale Local Leased Circuits (Full Circuits) Service Activation Request is submitted in respect of multiple circuits, all with the same A-end and the same B-end, the Requesting Licensee shall pay a Per Order Charge for processing the request and Per Circuit Charge for each of the circuits requested.

7.1.3 Installation Charge

The Requesting Licensee shall pay to SingTel a one-time Installation Charge for provisioning each Wholesale Local Leased Circuits (Full Circuits) Service Activation Request.

For express provisioning, the Requesting Licensee shall pay to SingTel an amount equivalent to twice the one-time Installation Charge for provisioning each Wholesale Local Leased Circuits (Full Circuits) Service Activation Request.

7.1.4 Full Local Leased Circuit (Point-to-Point)

The Requesting Licensee shall pay to SingTel the recurring license Charge for each Full Local Leased Circuit (Point-to-Point) circuit provisioned.

7.1.5 Full Local Leased Circuit (Point-to-Multipoint)

The Requesting Licensee shall pay to SingTel the recurring license Charge for each Full Local Leased Circuit (Point-to-Multipoint) circuit provisioned.

7.1.6 Relocation Charge

The Requesting Licensee shall pay to SingTel a one-time Relocation Charge as follows:

For internal relocation (any relocation within the same building), the Internal Relocation Charge would be applicable.

For external relocation (any relocation out of the building), the External Relocation Charge would be applicable.

DESCRIPTION	CHARGES (S\$)	CHARGES (S\$)
<p>Application Charge</p> <p>Per Order Charge</p> <p>For 64kbps and 128kbps bandwidth – Per order</p> <p>For bandwidths other than 64kbps and 128kbps – Per order</p> <p>Per Circuit Charge</p> <p>For 64kbps and 128kbps bandwidth – Per circuit</p> <p>For bandwidths other than 64kbps and 128kbps – Per circuit</p>		
<p>Full Local Leased Circuit (Point-to-Point) - per PTP circuit per month</p> <p>64 kbps</p> <p>128 kbps</p> <p>192 kbps</p> <p>256 kbps</p> <p>384 kbps</p> <p>512 kbps</p> <p>768 kbps</p> <p>1024 kbps</p> <p>1536 kbps</p> <p>1984 kbps</p> <p>2 Mbps</p> <p>45 Mbps</p> <p>155 Mbps</p>	<p>Monthly Recurring Charges</p>	<p>One-Time Installation Charges</p>

DESCRIPTION	CHARGES (S\$)	CHARGES (S\$)
<p>Full Local Leased Circuit (Point-to-Multipoint) – per PTMP circuit per month</p>	<p>Monthly Recurring Charges</p>	<p>One-Time Installation Charges</p>
<p>Trunk Circuit</p>		
<p>1984 kbps</p>		
<p>Tail Circuit</p>		
<p>64 kbps</p>		
<p>128 kbps</p>		
<p>192 kbps</p>		
<p>256 kbps</p>		
<p>384 kbps</p>		
<p>512 kbps</p>		
<p>768 kbps</p>		
<p>1024 kbps</p>		
<p>1536 kbps</p>		
<p>1984 kbps</p>		
<p>Grooming Facility Charge (applicable for every PTMP tail and trunk circuit)</p>		
<p>* This charge is only applicable in the event that Grooming Reconfiguration is done. For avoidance of doubt, when a PTMP tail or trunk circuit is provisioned for the first time, this charge is not applicable.</p>		<p>*</p>

DESCRIPTION	CHARGES (S\$)	CHARGES (S\$)
<p>Generic Components (for 64kbps and 128kbps)</p> <p>Sale</p> <p>Network Terminating Equipment</p> <p>Network Terminating Equipment Installation</p> <p>Lease</p> <p>Network Terminating Equipment Lease</p>	<p>Monthly Recurring Charges</p>	<p>One-Time Charges</p>
<p>Internal Relocation Charges</p> <p>64 kbps</p> <p>128 kbps</p> <p>192 kbps</p> <p>256 kbps</p> <p>384 kbps</p> <p>512 kbps</p> <p>768 kbps</p> <p>1024 kbps</p> <p>1536 kbps</p> <p>1984 kbps</p> <p>2 Mbps</p> <p>45 Mbps</p> <p>155 Mbps</p>	<p>Monthly Charge</p>	<p>One-Time Charge</p>

DESCRIPTION	CHARGES (S\$)	CHARGES (S\$)
External Relocation Charges 64 kbps 128 kbps 192 kbps 256 kbps 384 kbps 512 kbps 768 kbps 1024 kbps 1536 kbps 1984 kbps 2 Mbps 45 Mbps 155 Mbps	Monthly Charge	One-Time Charge

**SCHEDULE 7B – WHOLESALE LOCAL LEASED CIRCUITS (TAIL CIRCUITS)
SERVICE**

7.2 General

7.2.1 The Requesting Licensee shall be liable to pay and shall pay SingTel the relevant Charges for the Wholesale Local Leased Circuits (Tail Circuits) Service as provided in Schedule 7B.

7.2.2 Application Charge

The Requesting Licensee shall pay to SingTel the Application Charge for processing each Wholesale Local Leased Circuits (Tail Circuits) Service Activation Request. The Application Charge shall consist of a Per Order Charge for processing the request and a Per Circuit Charge for the circuit requested. The Application Charge shall be waived if the Service requested in the application (after having received SingTel's in-principle approval) is provisioned. However, the Application Charge shall be applied if the Wholesale Local Leased Circuits (Tail Circuit) Service Activation Request is not approved by SingTel or pre-maturely cancelled or terminated by the Requesting Licensee. Where a single Wholesale Local Leased Circuits (Tail Circuits) Service Activation Request is submitted in respect of multiple circuits, all with the same A-end, the Requesting Licensee shall pay a Per Order Charge for processing the request and Per Circuit Charge for each of the circuits requested.

7.2.3 Installation Charge

The Requesting Licensee shall pay to SingTel a one-time Installation Charge for provisioning each Wholesale Local Leased Circuits (Tail Circuits) Service Activation Request.

For express provisioning, the Requesting Licensee shall pay to SingTel an amount equivalent to twice the one-time Installation Charge for provisioning each Wholesale Local Leased Circuits (Tail Circuits) Service Activation Request.

7.2.4 Tail Local Leased Circuit

The Requesting Licensee shall pay to SingTel the recurring license charge for each Tail Local Leased Circuit provisioned.

7.2.5 Relocation Charge

The Requesting Licensee shall pay to SingTel a one-time Relocation Charge as follows:

For internal relocation (any relocation within the same building), the Internal Relocation Charge would be applicable.

For external relocation (any relocation out of the building), the External Relocation Charge would be applicable.

DESCRIPTION	CHARGES (S\$)	CHARGES (S\$)
<p>Application Charge</p> <p>Per Order Charge</p> <p>For 64kbps and 128kbps bandwidth – Per order</p> <p>For bandwidths other than 64kbps and 128kbps – Per order</p> <p>Per Circuit Charge</p> <p>For 64kbps and 128kbps bandwidth – Per circuit</p> <p>For bandwidths other than 64kbps and 128kbps – Per circuit</p>		

DESCRIPTION	CHARGES (S\$)	CHARGES (S\$)
<p>Tail Local Leased Circuit - per Tail Local Leased Circuit per month</p> <p>64 kbps 128 kbps 192 kbps 256 kbps 384 kbps 512 kbps 768 kbps 1024 kbps 1536 kbps 1984 kbps 2 Mbps 45 Mbps 155 Mbps</p>	<p>Monthly Recurring Charges</p>	<p>One-Time Installation Charges</p>
<p>Generic Components (for 64kbps and 128kbps)</p> <p>Sale Network Terminating Equipment Network Terminating Equipment Installation</p> <p>Lease Network Terminating Equipment Lease</p>	<p>Monthly Recurring</p>	<p>One-Time Charge</p>

DESCRIPTION	CHARGES (S\$)	CHARGES (S\$)
Internal Relocation Charges	Monthly Charge	One-Time Charge
64 kbps		
128 kbps		
192 kbps		
256 kbps		
384 kbps		
512 kbps		
768 kbps		
1024 kbps		
1536 kbps		
1984 kbps		
2 Mbps		
45 Mbps		
155 Mbps		
External Relocation Charges	Monthly Charge	One-Time Charge
64 kbps		
128 kbps		
192 kbps		
256 kbps		
384 kbps		
512 kbps		
768 kbps		
1024 kbps		
1536 kbps		
1984 kbps		
2 Mbps		

DESCRIPTION	CHARGES (S\$)	CHARGES (S\$)
45 Mbps 155 Mbps		

7.3 Other Charges

The Requesting Licensee shall compensate SingTel for the cost incurred in responding to a fault that is not caused by SingTel based on the Call Out Rates as provided below:

- a. The Call Out Rate applicable shall be based on per visit charge.
- b. Per visit charge is S\$___ per man per hour, for a minimum of 2 hours. Subsequent ¼ hour blocks are charged at S\$___ per man, basis.
- c. The above charges are applicable only for call out jobs during weekdays (ie Mondays to Fridays) and during office hours only.
- d. Different charges (based on “Visitation charge x Factor”) will be applied during other periods and/or times – see table below.

PERIOD	TIME	FACTOR
Monday to Friday	8.30am to 6.00pm	1.0
Saturday	8.30am to 1.00pm	
Monday to Friday	After 6.00pm	1.5
Saturday	After 1.00pm	
Sundays and Public Holidays	Throughout	2.0

8. SCHEDULE 8 – CO-LOCATION AND SCHEDULE 5C – LICENSING OF ROOF SPACE & CO-LOCATION SPACE AT ROOF SITES

8. General

- 8.1.1 The Charges applicable for Co-location are provided in Table 1 and 2.
- 8.1.2 Table 1 sets out the common Charges applicable for Co-location for Point of Interconnection (POI), Point of Access (POA), Submarine Cable Landing Station and Roof Access.
- 8.1.3 Table 2 sets out the additional Charges applicable for Co-location for Point of Access (POA).
- 8.1.4 Table 3 sets out the additional Charges applicable for Co-location for Roof Access.
- 8.1.5 Requesting Licensee confirms its acceptance of the Charges for Site Preparation Work and shall be paid in advance of the licence period.

8.2 **Charges**

8.2.1 The Charges are as follows:

TABLE 1 - COMMON CHARGES FOR CO-LOCATION AT:

POI/POA/ SUBMARINE CABLE LANDING STATION/ROOF ACCESS

DESCRIPTION	CHARGES (\$)
<p>Ordering And Provisioning</p> <p>Application Fee (Per Co-location Site)</p> <p>Project Study (Per Co-location Site)</p>	
<p>Site Preparation & Installation</p> <p>Site Preparation Work –for M&E works etc</p> <p>Fire Safety Bureau Charges</p>	
<p>Building & Construction Authority Charges</p> <p>Construction of Connection Duct – 1 metre of 110mm diameter Connection Duct</p> <p>Installation of Optical Fibre</p> <p>Provision, installation and termination of Transmission Tie Cables, Power and Earth comms cables</p>	
<p>Provision, installation and termination of Tie Cables for TLLC Service (n x 64 kbps, 2 Mbps, 45 Mbps and 155 Mbps)</p>	
<p>Usage / License Charges</p> <p>Co-location Space (minimum of 1 square metre to maximum of 10 square metre) per square metre per year</p> <p>Power (minimum of 13 fused amp for AC and minimum of 20 fused amp for DC) per fused amp per year</p>	

DESCRIPTION	CHARGES (S\$)
Lead-in Ducts (per duct metre per year)	
<p>Manpower Cost</p> <ul style="list-style-type: none"> - Supervision of work during installation - Site Inspection - Final Inspection - Escort Service for Physical Access - Application for Physical Access (per Co-Location site) - Administrative fee for Updating master list 	
<p>Recovery</p> <p>Recovery of Equipment, Cable Trays, M&E works (where applicable) upon termination of Co-location.</p>	
<p>SingTel Exchange Related Information</p> <p>Application Fee</p> <p>Address of SingTel Exchange Building and diagram of network boundary</p>	

TABLE 2 - ADDITIONAL CHARGES FOR CO-LOCATION AT:

POA

DESCRIPTION	CHARGES (\$\$)
Usage / License Charges Subscriber Loop Tie Cable (minimum bundle of 200 pairs and multiples of 200 pairs thereof) per pair per year	

TABLE 3 - ADDITIONAL CHARGES FOR CO-LOCATION AT:

ROOF ACCESS

DESCRIPTION	CHARGES (\$\$)
Usage / License Charges Subscriber Loop Tie Cable (minimum bundle of 200 pairs and multiples of 200 pairs thereof) per pair per year Roof Space per antenna mounting per month	