

**SCHEDULE 9**  
**CHARGES**

## **SCHEDULE 9**

### **CHARGES**

#### **CONTENTS**

<b>1. SCHEDULE 1 – PHYSICAL AND VIRTUAL INTERCONNECTION</b>	<b>2</b>
<b>2. SCHEDULE 2 – CALL ORIGINATION, TERMINATION AND TRANSIT</b>	<b>5</b>
<b>3. SCHEDULE 3 – UNBUNDLED NETWORK ELEMENTS</b>	<b>10</b>
<b>4. SCHEDULE 4 – UNBUNDLED NETWORK SERVICES</b>	<b>25</b>
<b>5. SCHEDULE 5 – ESSENTIAL SUPPORT FACILITIES</b>	<b>39</b>
<b>6. SCHEDULE 6 – [INTENTIONALLY BLANK]</b>	<b>47</b>
<b>7. SCHEDULE 7 – [INTENTIONALLY BLANK]</b>	<b>48</b>
<b>8. SCHEDULE 8 – CO-LOCATION</b>	<b>49</b>
<b>9. SCHEDULE 13 – LICENSING OF CDN</b>	<b>54</b>

## **SCHEDULE 9**

### **CHARGES**

#### **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) For the avoidance of doubt, if SingTel incurs additional costs in relation to the provision of IRS or Wholesale Services to the Requesting Licensee which cannot otherwise be recovered by SingTel as a Charge under Schedule 9, SingTel may recover these costs from the Requesting Licensee in accordance with the procedures set out in the relevant Schedule.
- (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. Where the Requesting Licensee disputes SingTel's determination of such Charges, the parties shall resolve such dispute in accordance with Schedule 11 of the RIO Agreement.

**1. 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.

<b>DESCRIPTION</b>	<b>CHARGES (S\$)</b>
<b>Interconnect Testing</b>	
Application Charge per request	79.75
Testing Charge per day (based on testing duration)	982.35

**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 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):

<b>Number of days:</b>	<b>% of Testing fee to be paid:</b>
<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 RIO Agreement is not executed prior to the test, except in instances where the delay or cancellation is occasioned by SingTel.

#### **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:

Description	Charges (\$\$)
<b>Recovery for over-forecasting</b>	
Per augmented 2Mbps trunk for Origination Call Type per day	53.43
Per augmented 2Mbps trunk for Termination Call Type per day	53.43
Per augmented 2Mbps trunk for Transit Call Type per day	16.32

**1.3 Reconnection of Interconnection Link**

1.3.1 Following the lifting of any suspension of this RIO Agreement or Schedule 1, the following charges shall apply:

Description	Charges (\$\$)
<b>Reconnection</b> Per Interconnection Link	on a case-by-case basis

**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 (S\$)
<b>IGS/SGS Origination Charge per call minute</b>	
Peak Hour Rate	0.0078
Off-Peak Hour Rate	0.0039
<b>Implementation Charge for Call Type request</b>	
Per Application	694.31
Per IGS	2,131.48
Per SGS or Integrated IGS (with Local Switch functionality)	2,158.92
Per Local Switch	388.15
<b>Cessation of Call Type</b>	
Per Application	440.98
Per IGS	1,917.32
Per SGS or Integrated IGS (with Local Switch functionality)	1,944.75
Per Local Switch	362.46
<b>Reconnection<sup>1</sup></b>	
Per IGS	on a case-by-case basis
Per SGS or Integrated IGS (with Local Switch functionality)	on a case-by-case basis
Per Local Switch	on a case-by-case basis

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

<sup>1</sup> These charges shall apply in the event of the lifting of suspension of this RIO Agreement or Schedule 2A.



**SCHEDULE 2B – TERMINATION**

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

DESCRIPTION	CHARGES (S\$)
<b>IGS/SGS Termination Charge per call minute</b>	
Peak Hour Rate	0.0078
Off-Peak Hour Rate	0.0039
<b>Implementation Charge for Call Type request</b>	
Per Application	694.31
Per IGS	2,131.48
Per SGS or Integrated IGS (with Local Switch functionality)	2,158.92
Per Local Switch	388.15
<b>Cessation of Call Type</b>	
Per Application	440.98
Per IGS	1,917.32
Per SGS or Integrated IGS (with Local Switch functionality)	1,944.75
Per Local Switch	362.46
<b>Reconnection<sup>2</sup></b>	
Per IGS	on a case-by-case basis
Per SGS or Integrated IGS (with Local Switch functionality)	on a case-by-case basis
Per Local Switch	on a case-by-case basis

<sup>2</sup> These charges shall apply in the event of the lifting of suspension of this RIO Agreement or Schedule 2B.

**SCHEDULE 2C – TRANSIT**

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

DESCRIPTION	CHARGES (S\$)
<b>IGS/SGS Transit Charge per call minute</b> Peak Hour Rate Off-Peak Hour Rate	0.0005 0.0002
<b>Implementation Charge for Call Type request</b> Per Application Per IGS Per SGS or Integrated IGS (with Local Switch functionality)	694.31 2,131.48 2,158.92
<b>Implementation Charge for change in amount of Interconnection Capacity</b> Per Application	on a case-by-case basis
<b>Cessation of Call Type</b> Per Application Per IGS Per SGS or Integrated IGS (with Local Switch functionality)	440.98 1,917.32 1,944.75

<p><b>Reconnection<sup>3</sup></b></p> <p>Per IGS</p> <p>Per SGS or Integrated IGS (with Local Switch functionality)</p>	<p>on a case-by-case basis</p> <p>on a case-by-case basis</p>
<p><b>Additional Interconnection Capacity</b></p> <p>One-time installation Charge per E1 Interconnection Link</p> <p>Recurring Charge per E1 Interconnection Link</p>	<p>on a case-by-case basis</p> <p>on a case-by-case basis</p>

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<sup>3</sup>These charges shall apply in the event of the lifting of suspension of this RIO Agreement or Schedule 2C.

**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.

### 3.2 Charges

#### 3.2.1 Prices for licensing of Local Loop are as follows:

DESCRIPTION	CHARGES (S\$)
<b>Ordering Charges</b>	
Per order <sup>4</sup>	41.36
Per order (applicable where the application is rejected by SingTel pursuant to clause 5.2 of Schedule 3A)	15.63
<b>Provisioning Charges</b>	
Per loop <sup>5</sup>	87.63
Per subsequent loop at same address using the same DP <sup>6</sup>	46.99
Cancellation Charge (per loop) (before performance of jumpering works)	11.99
<b>Recurrent Charges (per loop per year)</b>	
Central Business District	42.73
Other Commercial Areas	114.37
Residential	175.34
<b>Request for SingTel to Perform Additional Jumpering Work at Exchange MDF Charges</b>	
Per request	15.11
Jumpering Work per Loop	26.08
<b>Fault Reporting Charges</b>	
Charges for fault found to be with the Reporting Party (per activation per loop)	55.28

<sup>4</sup> This charge will not apply where the order is rejected pursuant to clause 5.2 of Schedule 3A.

<sup>5</sup> This charge will not apply where the order is cancelled prior to jumpering works performed by SingTel. In such cases, only the Cancellation Charge will apply.

<b>Termination Charges (per address)</b>	
Per order	41.36
Per loop	86.08
Per subsequent loop at same address using the same DP	45.44
<b>Reconnection Charges<sup>6</sup> (per address)</b>	
Per loop	on a case-by-case basis
Per subsequent loop at same address using the same DP	on a case-by-case basis
<b>SingTel Exchange Related Information</b>	
Application Fee per application	13.79
The overall percentage of SingTel's copper local loops available within the boundary at each local exchange (per exchange)	18.39
For each Building MDF served by each local exchange, the percentage of available SingTel's copper loop feeders for that Building MDF (per Building MDF)	19.38
For each Outdoor cabinet served by each local exchange, the percentage of available SingTel's copper loop feeders for that Outdoor cabinet (per Outdoor cabinet)	19.38
The overall percentage of SingTel's copper loop distribution available at the Building MDF (per Building MDF)	19.38
The overall percentage of SingTel's copper loop distribution available at the Outdoor cabinet (per Outdoor cabinet)	19.38
The overall percentage of SingTel's copper loop distribution available at a Distribution Point (per distribution point)	19.05
The address of each Building MDF for each local exchange (per Building MDF)	18.72
The address and type of each Outdoor cabinet for each local exchange (per Outdoor cabinet)	18.72

<sup>6</sup> These charges shall apply in the event of the lifting of suspension of this RIO Agreement or Schedule 3A.

3.2.2 Prices for licensing of Sub Loop Feeder are as follows:

DESCRIPTION	CHARGES (\$\$)
<b>Ordering Charges</b> Per order <sup>7</sup> Per order (applicable where the application is rejected by SingTel pursuant to clause 5.2 of Schedule 3A)	41.36  15.63
<b>Provisioning Charges</b> Per sub loop feeder <sup>8</sup> Per subsequent sub loop feeder at same address <sup>9</sup> Cancellation Charge (per sub loop feeder) (before performance of jumpering works)	87.63 46.23 11.99
<b>Recurrent Charges (per Sub Loop Feeder per year)</b> Central Business District Other Commercial Areas Residential	25.05 50.95 32.75
<b>Request for SingTel to Perform Additional Jumpering Work Charges</b>  Per request Additional jumpering work at Building MDF per Sub-Loop Feeder Additional jumpering work at Building MDF per subsequent Sub-Loop Feeder at same address Additional jumpering work at Exchange MDF per Sub-Loop Feeder Additional jumpering work at Exchange MDF per subsequent Sub-Loop Feeder at same address	15.11  49.55 11.46 26.08 23.53

<sup>7</sup> This charge will not apply where the order is rejected pursuant to clause 5.2 of Schedule 3A.

<sup>8</sup> This charge will not apply where the order is cancelled prior to jumpering works performed by SingTel. In such cases, only the Cancellation Charge will apply.

<b>Fault Reporting Charges</b> Charges for fault found to be with the Reporting Party (per activation per Sub Loop Feeder)	36.95
<b>Termination Charges</b> Per order Per Sub Loop Feeder Per subsequent Sub Loop Feeder at same address using the same DP	41.36 86.08 45.44
<b>Reconnection Charges<sup>9</sup></b> Per Sub Loop Feeder Per subsequent Sub Loop Feeder at same address using the same DP	on a case-by-case basis on a case-by-case basis

3.2.3 Prices for licensing of Sub Loop Distribution are as follows:

DESCRIPTION	CHARGES (S\$)
<b>Ordering Charges</b> Per order <sup>10</sup> Per order (applicable where the application is rejected by SingTel to pursuant to clause 5.2 of Schedule 3A)	41.36 15.63
<b>Provisioning Charges</b> Per sub loop distribution <sup>11</sup> Per subsequent sub loop distribution at same address using the same DP <sup>12</sup> Cancellation Charge (per sub loop distribution) (before performance of jumpering works)	61.55 23.45 11.99

<sup>9</sup> These charges shall apply in the event of the lifting of suspension of this RIO agreement or Schedule 3A.

<sup>10</sup> This charge will not apply where the order is rejected pursuant to clause 5.2 of Schedule 3A.

<sup>11</sup> This charge will not apply where the order is cancelled prior to jumpering works performed by SingTel. In such cases, only the Cancellation Charge will apply.



<b>Recurrent Charges (per Sub Loop Distribution per year)</b> Central Business District Other Commercial Areas Residential	17.68 63.41 142.59
<b>Request for SingTel to Perform Additional Jumpering Work Charges</b> Per request Additional jumpering work at Building MDF per Sub-Loop Distribution Additional jumpering work at Building MDF per subsequent Sub-Loop Distribution	15.11 49.55 11.46
<b>Fault Reporting Charges</b> Charges for fault found to be with the Reporting Party (per activation per Sub Loop Distribution)	43.02
<b>Termination Charges</b> Per order Per Sub Loop Distribution Per subsequent Sub Loop Distribution at same address and same Building MDF	41.36 61.29 23.20
<b>Reconnection Charges<sup>12</sup></b> Per Sub Loop Distribution Per subsequent Sub Loop Distribution at same address and same Building MDF	on a case-by-case basis on a case-by-case basis

<sup>12</sup> These charges shall apply in the event of the lifting of suspension of this RIO Agreement or Schedule 3A.

## **SCHEDULE 3B - LINE SHARING**

### **3.3 General**

- 3.3.1 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.
- 3.3.2 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.

### 3.4 Charges

#### 3.4.1 Prices for Line Sharing are as follows:

DESCRIPTION	CHARGES (\$\$)
<b>Ordering Charges</b> Per order <sup>13</sup> Per order (applicable where the application is rejected by SingTel pursuant to clause 4.2 of Schedule 3B)	41.36 15.63
<b>Provisioning Charges</b> Per Shared Line accessed at exchange MDF <sup>14</sup> Per Shared Line accessed at Building MDF Per Subsequent Shared Line accessed at same Building MDF Cancellation Charge (per Shared Line) (before performance of jumpering works)	50.35 71.84 46.54 11.99
<b>Recurrent Charges for Line Sharing</b>	N.A.
<b>Request for SingTel to Perform Additional Jumpering Work Charges</b> Per request Additional jumpering at Exchange MDF Additional jumpering at Building MDF	15.11 38.36 59.85
<b>Fault Reporting Charges</b> Charges for fault found to be within the Reporting Party's Network (per activation per line): For work to be performed at Exchange MDF only For work to be performed at Building MDF only.	17.79 36.50

<sup>13</sup> This charge will not apply where the order is rejected pursuant to clause 4.2 of Schedule 3B.

<sup>14</sup> This charge will not apply where the order is cancelled prior to jumpering works performed by SingTel. In such cases, only the Cancellation Charge will apply.

<b>Termination Charges</b> Per order Per Shared Line accessed at Exchange MDF Per Shared Line accessed at Building MDF Per subsequent Shared Line accessed at Building MDF	41.36 44.23 64.61 39.31
<b>Reconnection Charges<sup>15</sup></b> Per Reconnection Request for Shared Line accessed at Exchange MDF Per Reconnection Request for Shared Line accessed at Building MDF	on a case-by-case basis on a case-by-case basis

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<sup>15</sup> These charges shall apply in the event of the lifting of suspension of this RIO Agreement or Schedule 3B.

### SCHEDULE 3C - SALE OF INTERNAL WIRING

#### 3.5 General

3.5.1 The Requesting Licensee shall pay the application fee to SingTel in accordance with this Schedule.

3.5.2 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.

#### 3.6 Charges

3.6.1 Charges for Internal Wiring are as follows:

DESCRIPTION	CHARGES (S\$)
<b>Internal Wiring</b> Purchase price per pair	52.37
<b>Fault Reporting Charges</b> Charges for fault found to be caused by Requesting Licensee's use of Internal Wiring (per pair)	36.50
<b>Fault Restoration Charges</b> Damage and/or modification to Internal Wiring or the associated equipment	on case-by-case basis

3.6.2 **Other Charges:**

While the Requesting Licensee is accessing SingTel's Internal Wiring before purchasing the 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**

### **3.7 General**

- 3.7.1 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.
- 3.7.2 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.

### 3.8 Charges

3.8.1 Prices for Distribution Frame Mountings are as follows:

DESCRIPTION	CHARGES (S\$)
<b>Ordering Charges</b>	
Per order <sup>16</sup>	186.74
Per order (applicable where the application is rejected by SingTel pursuant to clause 4.2 of Schedule 3D)	15.63
<b>Recurrent Charges (per Distribution Frame Mounting per year)</b>	
Central Business District	97.82
Other Commercial Areas	97.82
Residential	97.82
<b>Request for SingTel to Construct Distribution Frame Vertical</b>	
Per Construction Order	274.38
Construction Charge	on a case-by-case basis
<b>Reconnection Charges<sup>17</sup></b>	
Per Reconnection Request	on a case-by-case basis
<b>Termination Charges</b>	
Per Termination Request including recovery of Equipment, Termination Units, M&E works (where applicable) upon termination of Distribution Frame Mounting	on a case-by-case basis

<sup>16</sup> This charge will not apply where the order is rejected pursuant to clause 4.2 of Schedule 3D.

<sup>17</sup> This charge is applicable upon the lifting of suspension of this RIO Agreement or Schedule 3D.

## SCHEDULE 3E – LICENSING OF OUTDOOR CABINET DISTRIBUTION FRAME

### 3.9 General

3.9.1 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 Outdoor Cabinet Distribution Frame Mountings.

3.9.2 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.

### 3.10 Charges

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

DESCRIPTION	CHARGES (\$\$)
<b>Ordering Charges</b>	
Per order <sup>18</sup>	216.36
Per order (applicable where the application is rejected by SingTel pursuant to clause 4.4 of Schedule 3E)	15.63
Per order for cancellation of application	33.94

<sup>18</sup> This charge will not apply where the order is rejected pursuant to clause 4.4 of Schedule 3E.



DESCRIPTION	CHARGES (\$\$)
<p><b>Site Preparation &amp; Installation</b></p> <p>Site Preparation Work – for M&amp;E works etc</p> <p>Fire Safety Bureau Charges (where applicable)</p> <p>Building &amp; Construction Authority Charges (where applicable)</p> <p>Construction of Connection Duct – 1 metre of 110mm diameter Connection Duct</p> <p>Road Opening Application Fee (where applicable)</p> <p>Provision, installation and termination of Subscriber Tie Cables, Terminal unit, Terminal block</p>	<p>on a case-by-case basis.</p> <p>on a case-by-case basis</p> <p>on a case-by-case basis</p> <p>1,449</p> <p>165</p> <p>on a case-by-case basis</p>
<p><b>Recurrent Charges</b></p> <p><b>Per Outdoor Cabinet Distribution Frame Mounting per year</b></p> <p>Central Business District</p> <p>Other Commercial Areas</p> <p>Residential</p> <p><b>Lead in Ducts (per duct metre per year)</b></p> <p>Central Business District</p> <p>Other Commercial Areas</p> <p>Residential</p> <p><b>Lead in Ducts without Manhole (per duct metre per year)</b></p> <p>Central Business District</p> <p>Other Commercial Areas</p> <p>Residential</p>	<p>47.19</p> <p>47.19</p> <p>47.19</p> <p>8.81</p> <p>8.54</p> <p>9.64</p> <p>6.41</p> <p>6.82</p> <p>6.56</p>
<p><b>Manpower Cost</b></p> <p><b>Supervision of work during installation, Site Inspection, Final Inspection</b></p> <p>During Office Hours (Minimum 2 hrs) – per hour</p> <p>After Office Hours (Minimum 2 hrs) – per hour</p> <p>After Office Hours (Minimum 4 hrs if recalled from home) – per hour</p>	<p>46.10</p> <p>69.15</p> <p>69.15</p>

DESCRIPTION	CHARGES (S\$)
Saturday (Minimum 4 hrs) – per hour Sunday (requiring < 4 hrs) – per activation Sunday (requiring > = 4 hrs) – per activation Public Holiday – per activation For all recalls/activations, the Requesting Licensee shall reimburse SingTel for its staff's reasonable transportation claim	69.15 405.71 811.42 737.65
<b>Physical Access/Emergency Physical Access</b> Application Fee (per Lead-in Manhole)	13.79
<b>Updating Master List</b> Administrative Fee (per form)	13.79
<b>Reconnection Charges<sup>19</sup></b> Per Reconnection Request	on a case-by-case basis
<b>Termination Charges</b> Per Termination Request including recovery of Equipment, Termination Units, M&E works (where applicable) upon termination of Outdoor Cabinet Distribution Frame Mounting	on a case-by-case basis
<b>Miscellaneous Charges<sup>20</sup></b> 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	257.58 515.15 260.70 339.90
<b>SingTel Exchange Related Information</b> Application Fee per application  The address and type of SingTel's Outdoor Cabinet at each location (per Outdoor Cabinet)	13.79  18.72

<sup>19</sup> These charges shall apply in the event of the lifting of suspension of this RIO Agreement or Schedule 3E.

<sup>20</sup> These charges will apply for site inspections performed by SingTel during project studies or upon additional requests from Requesting Licensees.

#### **4. SCHEDULE 4 – UNBUNDLED NETWORK SERVICES**

##### **SCHEDULE 4A – EMERGENCY SERVICES**

#### **4.1 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 (S\$)
<b>Emergency Calls Charges per call minute</b>	
Peak Hour Rate	0.0037
Off-Peak Hour Rate	0.0019
<b>Implementation Charge for Call Type request</b>	
Per Application	694.31
Per IGS	2,131.48
Per SGS or Integrated IGS (with Local Switch functionality)	2,158.92
<b>Cessation of Emergency Call Service</b>	
Per Application	440.98
Per IGS	1,917.32
Per SGS or Integrated IGS (with Local Switch functionality)	1,944.75
<b>Reconnection<sup>21</sup></b>	
Per IGS	on a case-by-case basis
Per SGS or Integrated IGS (with Local Switch functionality)	on a case-by-case basis

<sup>21</sup> These charges shall apply in the event of the lifting of suspension of this RIO Agreement or Schedule 4A.

## **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**

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

DESCRIPTION	CHARGES (S\$)
<b>Application Charge per Request</b> <ul style="list-style-type: none"> <li>- Link Activation</li> <li>- Capacity Activation</li> <li>- Link and Capacity Activation</li> <li>- Link Deactivation</li> <li>- Capacity Deactivation</li> <li>- Link and Capacity Deactivation</li> </ul>	<ul style="list-style-type: none"> <li>407.30</li> <li>407.30</li> <li>554.02</li> <li>407.30</li> <li>407.30</li> <li>554.02</li> </ul>
<b>Activation Charge</b> <ul style="list-style-type: none"> <li>- Link Activation per link activated (for each service or protection link)</li> <li>- Capacity Activation per capacity activated</li> <li>- Link and Capacity Activation per link and capacity activated</li> </ul>	<ul style="list-style-type: none"> <li>2,536.23</li> <li>2,075.10</li> <li>4,150.20</li> </ul>
<b>Deactivation Charge</b> <ul style="list-style-type: none"> <li>- Link Deactivation per link deactivated (for each service or protection link)</li> <li>- Capacity Deactivation per capacity deactivated</li> <li>- Link and Capacity Deactivation per link and capacity deactivated</li> </ul>	<ul style="list-style-type: none"> <li>922.27</li> <li>775.54</li> <li>1,697.81</li> </ul>
<b>Annual Charge for Group A Cable Systems</b> <ul style="list-style-type: none"> <li>- Per link activated (for each service or protection link)</li> </ul>	<ul style="list-style-type: none"> <li>194.84</li> </ul>

DESCRIPTION	CHARGES (S\$)
<b>Annual Charge for Group B Cable Systems</b> <ul style="list-style-type: none"> <li data-bbox="443 367 868 398">- STM1 or VC4 (per Input Port)</li> <li data-bbox="443 412 890 443">- STM1 or VC4 (per Output Port)</li> <li data-bbox="443 456 767 488">- VC3 (per Output Port)</li> <li data-bbox="443 501 783 533">- VC12 (per Output Port)</li> </ul>	<ul style="list-style-type: none"> <li data-bbox="1241 367 1347 398">4650.36</li> <li data-bbox="1241 412 1347 443">4650.36</li> <li data-bbox="1241 456 1347 488">2325.18</li> <li data-bbox="1251 501 1337 533">110.72</li> </ul>

## **SCHEDULE 4C – IRS TAIL CIRCUIT SERVICE**

### **4.5 General**

4.5.1 The Requesting Licensee shall be liable to pay and shall pay SingTel the relevant Charges for the IRS Tail Circuit Service as provided in Schedule 4C.

#### **4.5.2 Application Charge**

The Requesting Licensee shall pay to SingTel the Application Charge for processing each Tail Circuit Activation Request (**TCAR**) or Tail Circuit Deactivation Request (**TCDR**). The Application Charge shall consist of a Per Order Charge for processing the request and a Per Circuit Charge for the circuit requested. For the avoidance of doubt, the Application Charge will still be applied if the TCAR or TCDR is not approved by SingTel or is pre-maturely cancelled or terminated by the Requesting Licensee. Where a single TCAR or TCDR is submitted in respect of multiple circuits, all terminating at the same End User's site, the Requesting Licensee shall pay a Per Order Charge for processing the request and a Per Circuit Charge for each of the circuits requested.

#### **4.5.3 Installation Charge**

The Requesting Licensee shall pay to SingTel a one-time Installation Charge for provisioning each Tail Circuit.

For express provisioning, the Requesting Licensee shall pay to SingTel an amount equivalent to twice the one-time Installation Charge for provisioning each TCAR

#### **4.5.4 Deactivation Charge**

The Requesting Licensee shall pay to SingTel a one-time Deactivation Charge for terminating each Tail Circuit.

#### **4.5.5 Project Study Charge**

The Requesting Licensee shall pay to SingTel the Project Study Charge, as well as the Application Charge, if it cancels its request for IRS Tail Circuit Service after commencement but prior to the completion of the Project Study. For the avoidance of doubt, if a Requesting Licensee cancels its request for IRS Tail Circuit Service



prior to the commencement of the Project Study, then the Requesting Licensee will only be responsible for the Application Charge.

#### **4.5.6 Recurring Charge**

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

#### **4.5.7 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.

#### **4.5.8 Change of Interface Standard Charge**

The Requesting Licensee shall pay to SingTel a Change of Interface Standard Charge for each request for an IRS Tail Circuit Service to be provisioned with a new Interface Standard.

#### **4.5.9 Tie-Cable Change Charge**

The Requesting Licensee shall pay to SingTel a Tie-Cable Change Charge for each request for an IRS Tail Circuit Service to be provisioned with a new Tie-Cable.

#### **4.5.10 No-Fault-Found Charge**

The Requesting Licensee shall pay to SingTel a No-Fault-Found Charge for each fault report which SingTel determines to be not due to SingTel.

#### **4.5.11 One-time System Set-up Charge**

The Requesting Licensee must pay SingTel the One-Time System Set-up Charge when it acquires the IRS Tail Circuit Service Schedule 4C. SingTel shall recover \$25,755.98 from all FBOs that acquire the IRS Tail Circuit Service Schedule 4C in accordance with the following:

- (a) The exact amount payable by the Requesting Licensee is determined by dividing \$25,755.98 by the total number of FBOs (including the Requesting Licensee) that have acquired the IRS Tail Circuit Service Schedule 4C at the time of acquisition of the IRS Tail Circuit Service Schedule 4C by the Requesting Licensee;
- (b) If any other FBO subsequently acquires the IRS Tail Circuit Service Schedule 4C, SingTel shall make a credit adjustment to the Requesting Licensee to take account of the change in the total number of FBOs that have acquired the IRS Tail Circuit Service Schedule 4C; and
- (c) The One-Time System Set-Up Charge is effective for a period of five (5) years from the date of payment of the One-Time System Set-Up Charge by the first FBO that acquired the IRS Tail Circuit Service under Schedule 4C (**Effective Charge Period**). For the avoidance of doubt:
  - (i) any Requesting Licensee that acquires the IRS Tail Circuit Service under Schedule 4C after the Effective Charge Period shall not be required to pay the One-Time System Set-up Charge; and
  - (ii) SingTel is not obliged to make any credit adjustments to the Requesting Licensee after the Effective Charge Period.

DESCRIPTION	CHARGES (S\$)	CHARGES (S\$)
<b>Application Charge</b>	<b>One-Time Installation Charges</b>	<b>One-Time Deactivation Charges</b>
<b>Per Order Charge</b>		
Per order	111.33	84.85
<b>Per Circuit Charge</b>		

DESCRIPTION	CHARGES (S\$)	CHARGES (S\$)
For bandwidths between 64 kbps and 1984 kbps – Per circuit	31.95	11.98
For bandwidths between 64 kbps and 1536 kbps – Per circuit, applicable where the circuit is groomed to an existing physical handover circuit	15.98	11.98
For bandwidths between 2 Mbps and 155 Mbps – Per circuit	23.96	11.98
<b>Project Study Charge (not applicable where the application is cancelled prior to the commencement of the Project Study)</b>		
For bandwidths between 64 kbps and 128 kbps – Per order	79.26	
For bandwidths between 192 kbps and 1024 kbps – Per order	334.28	
For bandwidths between 1536 kbps and 1984 kbps – Per order	533.96	
For 2 Mbps bandwidth – Per order	521.83	
For bandwidths between 45 Mbps and 155 Mbps – Per order	537.68	
<b>Tail Circuit – per Circuit (Without Grooming)</b>	<b>One-Time Installation Charges</b>	<b>One-Time Deactivation Charges</b>
64 kbps	1,011.91	467.83
128 kbps	1,011.91	467.83
192 kbps	1,417.13	467.83
256 kbps	1,417.13	467.83
384 kbps	1,417.13	467.83
512 kbps	1,417.13	467.83
768 kbps	1,417.13	467.83
1024 kbps	1,417.13	467.83
1536 kbps	1,637.12	556.77
1984 kbps	1,637.12	556.77

DESCRIPTION	CHARGES (S\$)	CHARGES (S\$)
2 Mbps	1,338.69	503.67
45 Mbps	1540.84	387.50
155 Mbps	1540.84	387.50
<b>Tail Circuit – per Circuit (With Grooming)</b>	<b>One-Time Installation Charges</b>	<b>One-Time Deactivation Charges</b>
64 kbps	755.89	286.91
128 kbps	755.89	286.91
192 kbps	1,143.23	286.91
256 kbps	1,143.23	286.91
384 kbps	1,143.23	286.91
512 kbps	1,143.23	286.91
768 kbps	1,143.23	286.91
1024 kbps	1,143.23	286.91
1536 kbps	1,357.90	375.68
Per Physical Handover Circuit (1984 kbps)	338.63	252.72
Grooming Charge (per Tail Circuit to be groomed to the Physical Handover Circuit)	30.38	
<b>Tail Circuit – per Circuit (without Grooming)</b>	<b>Recurring Charges per circuit per year</b>	
	<b>CBD</b>	<b>Non-CBD</b>
64 kbps	1,736	1,823
128 kbps	1,871	1,979
192 kbps	2,159	2,286
256 kbps	2,196	2,347
384 kbps	3,037	3,235
512 kbps	3,166	3,409
768 kbps	3,520	3,859
1024 kbps	1,786	2,202
1536 kbps	1,401	2,003

DESCRIPTION	CHARGES (S\$)	CHARGES (S\$)
1984 kbps	1,605	2,370
2 Mbps	678	1,443
45 Mbps	3,473	7,265
155 Mbps	5,201	10,881
<b>Tail Circuit – Per Circuit (with Grooming)</b>	<b>Recurring Charges per circuit per year</b>	
	<b>CBD</b>	<b>Non-CBD</b>
64 kbps	1,392	1,433
128 kbps	1,526	1,589
192 kbps	1,814	1,896
256 kbps	1,852	1,957
384 kbps	2,692	2,845
512 kbps	2,821	3,019
768 kbps	3,176	3,468
1024 kbps	1,441	1,812
1536 kbps	1,056	1,613
<b>Internal and External Relocation Charges</b>		<b>One-Time Charge</b>
<b>Per Order Charge</b>		
Per order		101.94
<b>Per Circuit Charge</b>		
For bandwidths between 64 kbps and 1984 kbps – Per circuit		31.95
For bandwidths between 2 Mbps and 155 Mbps – Per circuit		23.96

DESCRIPTION	CHARGES (S\$)	CHARGES (S\$)
<p><b>Project Study Charge (not applicable where the application is cancelled prior to the commencement of the Project Study)</b></p> <p>For bandwidths between 64 kbps and 128 kbps – Per order</p> <p>For bandwidths between 192 kbps and 1024 kbps – Per order</p> <p>For bandwidths between 1536 kbps and 1984 kbps – Per order</p> <p>For 2 Mbps bandwidth – Per order</p> <p>For bandwidths between 45 Mbps and 155 Mbps – Per order</p>		<p>62.30</p> <p>340.77</p> <p>440.44</p> <p>435.53</p> <p>433.10</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><b>One-Time Relocation Charges</b></p> <p>751.72</p> <p>751.72</p> <p>1,169.95</p> <p>1,169.95</p> <p>1,169.95</p> <p>1,169.95</p> <p>1,169.95</p> <p>1,169.95</p> <p>1,343.85</p> <p>1,343.85</p> <p>1,261.00</p> <p>1,618.10</p> <p>1,618.10</p>
<p><b>Change of Interface Standard Charge</b></p> <p>Per application</p>		<p><b>One-Time Charge</b></p> <p>54.56</p>

DESCRIPTION	CHARGES (S\$)	CHARGES (S\$)
Project Study Charge (per circuit)		54.87
Per Circuit		781.25
<b>Tie-Cable Change Charge</b>		<b>One-Time Charge</b>
Per Tie-Cable Change request		
64 kbps		209.17
128 kbps		209.17
192 kbps		231.97
256 kbps		231.97
384 kbps		231.97
512 kbps		231.97
768 kbps		231.97
1024 kbps		231.97
1536 kbps		244.16
1984 kbps		244.16
2 Mbps		377.24
45 Mbps		535.19
155 Mbps		535.19
<b>No-Fault-Found Charges</b>		<b>One-Time Charge</b>
Office hours		
64kbps to 1984kbps		317.37
2Mbps		508.31
45Mbps & 155Mbps		949.68
After Office hours		
64kbps to 1984kbps		567.81
2Mbps		798.48
45Mbps & 155Mbps		1,554.81

DESCRIPTION	CHARGES (S\$)	CHARGES (S\$)
<p>Sundays and Public Holidays</p> <p>64kbps to 1984kbps</p> <p>2Mbps</p> <p>45Mbps &amp; 155Mbps</p> <p><b>For all recalls, the Requesting Licensee shall reimburse SingTel for its staff's reasonable transportation claim.</b></p>		<p>913.03</p> <p>1,119.20</p> <p>1,923.89</p>
<p><b>One-time System Setup Charge</b></p>		<p><b>One-Time Charge</b></p>
<p>Per Requesting Licensee</p>		<p>As determined in clause 4.5.11 of this Schedule.</p>



## **5. SCHEDULE 5 – ESSENTIAL SUPPORT FACILITIES**

### **SCHEDULE 5A – LICENSING OF LEAD-IN DUCT AND 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 complete construction of the Connection Duct within twenty (20) 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 Charges for ordering and processing the application 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 Lead-in Manhole (where applicable), and the Requesting Licensee shall pay the Charges incurred in conducting the Project Study.

## **5.4 Other Fees and Charges**

### **5.4.1 Cancellation Fee**

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 One-time System Set-up Charge**

Subject to the Authority's approval, SingTel may charge the Requesting Licensee an apportioned one-time system set-up charge based on the number of Lead-in Ducts leased by the Requesting Licensee. The Requesting Licensee must pay SingTel in full and without delay, the apportioned one-time system set-up charge.

## **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 Lead-in Manhole (where applicable) 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 Lead-in Manhole (where applicable) 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 Lead-in Manhole (where applicable) and the removal of the Requesting Licensee's Underground Equipment, SingTel shall verify and restore the state of the Building Lead-in Duct and Lead-in Manhole (where applicable). The Requesting Licensee shall pay all reasonable costs incurred by SingTel in verifying and restoring the state of the Building Lead-in Duct and Lead-in Manhole (where applicable) including the costs of updating SingTel's records, other than in circumstances where the Requesting Licensee's discontinuation of the use of the Building Lead-in Duct and Lead-in Manhole (where applicable) is a direct result of SingTel's decommissioning of the Building Lead-in Duct and Lead-in Manhole (where applicable) under clause 2.3(f) of Schedule 5A.

## 5.8 Charges

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

DESCRIPTION	CHARGES (\$\$)
<b>Ordering and Provisioning Charges (excluding site survey Charges)</b>	
Per order <sup>22</sup>	88.21
Per order (applicable where the application is rejected by SingTel pursuant to clause 4.2 of Schedule 5A)	15.63
<b>Modified Underground Equipment</b>	
Application Fee (per Lead-in Manhole)	on a case-by-case basis
<b>Shared use of Lead-in Duct with access to Lead-in Manhole (per Standard Cable Equivalent per metre per year)</b>	
Central Business District*	1.80
Other Commercial Areas	1.80
Residential	1.80

<sup>22</sup> This charge will not apply where the order is rejected pursuant to clause 4.2 of Schedule 5A.

\* A Lead-in Duct is classified to be in Central Business District where the Lead-in Duct is located within the boundary served by Orchard Telephone Exchange, City Telephone Exchange, Central Telephone Exchange or East Telephone Exchange.

DESCRIPTION	CHARGES (S\$)
<b>Shared use of Lead-in Duct without access to Lead-in Manhole (per Standard Cable Equivalent per metre per year)</b> Central Business District* Other Commercial Areas Residential	 1.40 1.40 1.40
<b>Construction of Connection Duct (per Connection Duct) - 1m of 110mm diameter Connection Duct</b>  <b>LTA road work application and other related fees</b>	 1,449  on a case-by-case basis
<b>Miscellaneous Charges<sup>23</sup></b> Site survey/site meeting – Half Day Site survey/site meeting – Full Day Contractor Cost for Manhole Site Survey – per manhole  <b>Physical Access/Emergency Physical Access</b> Application Fee (Per request) <b>Updating Master List</b> Administrative Fee (per form)	 257.58 515.15 782.88   13.79  13.79
<b>Reconnection Charges</b> Per Reconnection Request <sup>24</sup>	 on a case-by-case basis
<b>Termination Charges</b> Per Termination Request including recovery of Equipment, M&E works (where applicable) upon termination of Lead-in-Manhole	 on a case-by-case basis
<b>One-time System Setup Charge<sup>25</sup></b>	 25,614

<sup>23</sup> These charges will apply for site inspections performed by SingTel during project studies or upon additional requests from Requesting Licensees.

<sup>24</sup> These charges shall apply in the event of the lifting of suspension of this RIO Agreement or Schedule 5A.

<sup>25</sup> This charge will apply with reference to clause 5.4.2 of Schedule 9.

**SCHEDULE 5B – [INTENTIONALLY BLANK]**

## SCHEDULE 5C – LICENCE OF ROOF SPACE AND CO-LOCATION AT ROOF SITES

### 5.9 General

5.9.1 Upon successful application of a request for Roof Space, SingTel shall:

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

### 5.9.2 Charges

DESCRIPTION	CHARGES (S\$)
<b>Ordering And Provisioning</b>	
Per order <sup>26</sup>	43.21
Per order (applicable where the application is rejected by SingTel pursuant to clause 3.4 of Schedule 5C)	15.63
Project Study (per Roof Site)	on a case-by-case basis
<b>Modified Roof Equipment</b>	
Per Request (per Roof Site)	on a case-by-case basis
<b>Site Preparation &amp; Installation</b>	
Site Preparation Work – for M&E works etc	on a case-by-case basis
Fire Safety Bureau Charges (where applicable)	on a case-by-case basis
Building & Construction Authority Charges (where applicable)	on a case-by-case basis
Installation of Optical Fibre	on a case-by-case basis
Provision, installation and termination of Power and Earth comms cable	on a case-by-case basis

<sup>26</sup> This charge will not apply where the order is rejected pursuant to clause 3.4 of Schedule 5C.

DESCRIPTION	CHARGES (S\$)
<b>Recurrent Charges (paid quarterly)</b>	
Roof Space (minimum of 1 square metre to maximum 10 square metre) per square metre per year	3,225.21
Power (minimum of 13 fused amp for AC and minimum of 20 fused amp for DC) per fused amp per year	444.74
<b>Manpower cost</b>	
<b>Supervision of work during installation, Site Inspection, Final Inspection, Escort Service for Physical Access</b>	
During Office Hours (Minimum 2 hrs) – per hour	46.10
After Office Hours (Minimum 2 hrs) – per hour	69.15
After Office Hours (Minimum 4 hrs if recalled from home) – per hour	69.15
Saturday (Minimum 4 hrs) – per hour	69.15
Sunday (requiring < 4 hrs) – per activation	405.71
Sunday (requiring > = 4 hrs) – per activation	811.42
Public Holiday – per activation	737.65
For all recalls/activations, the Requesting Licensee shall reimburse SingTel for its staff's reasonable transportation claim	
<b>Physical Access/Emergency Physical Access</b>	
Per Request	13.79
<b>Updating Master List</b>	
Administrative Fee (per form)	13.79
<b>Reconnection Charges</b>	
Per Reconnection Request <sup>27</sup>	on a case-by-case basis
<b>Termination Charges</b>	
Per Termination Request including recovery of Equipment, Cable Trays, M&E works (where applicable) upon termination of access to Roof Space or Co-Location.	on a case-by-case basis

<sup>27</sup> These charges shall apply in the event of the lifting of suspension of this RIO Agreement or Schedule 5C.

**5.10 Provisioning of Roof Space**

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

**5.11 Cancellation of request or approval for Roof Space**

5.11.1 SingTel may charge an administrative fee for processing such cancellation as well as the cost that SingTel incurred up to the point of cancellation.



**6. SCHEDULE 6 – [INTENTIONALLY BLANK]**

**7. SCHEDULE 7 – [INTENTIONALLY BLANK]**

**8. SCHEDULE 8 – CO-LOCATION**

**8.1 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 access to SingTel’s Exchange Building for the purposes of Co-location for Point of Interconnection (POI), Point of Access (POA), and Submarine Cable Landing Station, and access to Mandated Services.

8.1.3 Table 2 sets out the additional Charges applicable for Co-location for Point of Access (POA).

8.1.4 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 ATPOI / POA /SUBMARINE CABLE LANDING STATION, AND ACCESS TO MANDATED SERVICES AT SINGTEL'S EXCHANGE BUILDING**

DESCRIPTION	CHARGES (S\$)
<b>Ordering And Provisioning</b>	
Per order <sup>28</sup>	43.21
Per order (applicable where the application is rejected by SingTel pursuant to clause 3.3 of Schedules 8A, 8B and 8D)	15.63
Project Study (per Co-location Site)	1,528.54
Project Study (per order for Access to Mandated Services)	on a case-by-case basis
<b>Modified Co-Location Equipment</b>	
Per Request	on a case-by-case basis
<b>Site Preparation &amp; Installation</b>	
Site Preparation Work –for M&E works etc	on a case-by-case basis
Fire Safety Bureau Charges (where applicable)	on a case-by-case basis
Building & Construction Authority Charges (where applicable)	on a case-by-case basis
Construction of Connection Duct – 1 metre of 110mm diameter Connection Duct	2,057.08
Road Opening Application Fee (where applicable)	165

<sup>28</sup> This charge will not apply where the order is rejected pursuant to clause 3.6 of Schedule 8A, clause 3.3 of Schedule 8B, or clause 3.6 of Schedule 8D.

DESCRIPTION	CHARGES (S\$)
Installation of fibre cables or patch cords (including installation of additional cable trays or ladders)	on a case-by-case basis
Provision, installation and termination of Transmission Tie Cables, Power and Earth comms cables	on a case-by-case basis
Provision, installation and termination of Tie Cables for IRS Tail Circuit Service (n x 64 kbps, 2 Mbps, 45 Mbps and 155 Mbps)	on a case-by-case basis
<p><b>Recurrent Charges (paid quarterly)</b></p> <p>Co-location Space (minimum of 1 square metre to maximum of 10 square metre) per square metre per year (where the Requesting Licensee also leases Roof Space under Schedule 5C)</p> <p>Co-location Space (minimum of 1 square metre to maximum of 10 square metre) per square metre per year (where the Requesting Licensee leases only Co-location Space under Schedules 8A, 8B and 8D)</p> <p>Power (minimum of 13 fused amp for AC and minimum of 20 fused amp for DC) per fused amp per year</p> <p><b>Lead-in Ducts (per duct metre per year)</b></p> <p>Central Business District</p> <p>Non-Central Business District</p> <p><b>Lead-in Manholes (per duct bore per year)</b></p> <p>Central Business District</p> <p>Non-Central Business District</p>	<p>3,225.21</p> <p>3,547.73</p> <p>444.74</p> <p>6.41</p> <p>6.69</p> <p>68.25</p> <p>69.90</p>

DESCRIPTION	CHARGES (S\$)
<p><b>Manpower Cost</b></p> <p><b>Supervision of work during installation, Site Inspection, Final Inspection, Escort Service for Physical Access</b></p> <p style="padding-left: 40px;">During Office Hours (Minimum 2 hrs) – per hour</p> <p style="padding-left: 40px;">After Office Hours (Minimum 2 hrs) – per hour</p> <p style="padding-left: 40px;">After Office Hours (Minimum 4 hrs if recalled from home) – per hour</p> <p style="padding-left: 40px;">Saturday (Minimum 4 hrs) – per hour</p> <p style="padding-left: 40px;">Sunday (requiring &lt; 4 hrs) – per activation</p> <p style="padding-left: 40px;">Sunday (requiring &gt; = 4 hrs) – per activation</p> <p style="padding-left: 40px;">Public Holiday – per activation</p> <p>For all recalls/activations, the Requesting Licensee shall reimburse SingTel for its staff's reasonable transportation claim</p>	<p>46.10</p> <p>69.15</p> <p>69.15</p> <p>69.15</p> <p>405.71</p> <p>811.42</p> <p>737.65</p>
<p><b>Physical Access/Emergency Physical Access</b></p> <p style="padding-left: 40px;">Per Request</p> <p><b>Updating Master List</b></p> <p style="padding-left: 40px;">Administrative Fee (per form)</p>	<p>13.79</p> <p>13.79</p>
<p><b>Termination Charges</b></p> <p style="padding-left: 40px;">Per Termination Request including recovery of Equipment, Cable Trays, M&amp;E works (where applicable) upon termination of Co-location.</p>	<p>on a case-by-case basis</p>
<p><b>Reconnection Charges</b></p> <p style="padding-left: 40px;">Per Reconnection Request<sup>29</sup>(per Co-location Site)</p>	<p>on a case-by-case basis</p>
<p><b>SingTel Exchange Related Information</b></p> <p style="padding-left: 40px;">Application Fee per application</p> <p style="padding-left: 40px;">Address of SingTel Exchange Building and diagram of network boundary per SingTel Exchange</p>	<p>13.79</p> <p>62.60</p>

<sup>29</sup> These charges shall apply in the event of the lifting of suspension of this RIO Agreement or Schedules 8A or 8D.

**TABLE 2 - ADDITIONAL CHARGES FOR CO-LOCATION AT:**

**POA**

<b>DESCRIPTION</b>	<b>CHARGES (\$)</b>
<b>Recurrent Charges (paid quarterly)</b> Subscriber Loop Tie Cable per pair per year	8.53

## **9. SCHEDULE 13 – LICENSING OF CDN**

### **9.1 GENERAL**

9.1.1 Upon receipt of the Requesting Licensee’s agreement under clause 5.7 of Schedule 13, SingTel shall complete construction of the Connection Duct within forty (40) 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.

9.1.2 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 manhole(s) at the start and/or the end of the CDN;
- (b) printing of site plan;
- (c) constructing duct seal for the Connection Duct(s); and
- (d) labour costs.

9.1.3 The scope of activities covered under the O&M Charges and which SingTel shall perform thereunder are as follows:

- (a) maintain a manhole access system to control the access to the manholes, cable pulling and maintenance activities within the CDN for all Requesting Licensees;
- (b) control and manage the manhole keys for the access to the manholes within the CDN;
- (c) maintenance of the manholes within the CDN on environmental issues such as mosquitos breeding, excessive mud and gas leak; and
- (d) replacement of manhole covers within the CDN when they are faulty;



- (e) repair of ducts within the CDN when there is a pipe blockage due to soil movement and penetration of tree roots, or when the duct damage is not caused by the Requesting Licensee;
- (f) support other authority requirements such as the opening of manhole covers within the CDN for mosquito inspection by the National Environment Agency of Singapore (**NEA**) or gas detection by the gas department;
- (g) maintain an up-to-date records of the GPS of the manhole location and pipe route;
- (h) coordinating with government agencies and the Requesting Licensee on any plant diversion request;
- (i) coordinating with Land Transport Authority (**LTA**) on any request to re-surface the road or raising of manhole level; and
- (j) all other CDN operations and maintenance works where the damage is not caused by the Requesting Licensee.

## **9.2 Application Fee**

- 9.2.1 The Requesting Licensee shall pay the Charges for ordering and processing the application regardless of the outcome of the application.

## **9.3 Project Study**

- 9.3.1 SingTel shall proceed with a Project Study which would include a site survey conducted by SingTel to establish the location(s) where the Connection Duct(s) will be provisioned (where applicable), and the Requesting Licensee shall pay the Charges incurred in conducting the Project Study.

## **9.4 Cancellation Fee**

- 9.4.1 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 reasonably incurred up to the point the request is cancelled.

## **9.5 Request for Physical Access**

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

## **9.6 Unauthorised access to SingTel's Underground Plant**

9.6.1 Where SingTel approves the order, after having identified that the Requesting Licensee has accessed the CDN without having obtained approval in accordance with Schedule 13 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).

9.6.2 Where SingTel rejects the request for access, after having identified that the Requesting Licensee has accessed the CDN without having obtained approval in accordance with Schedule 13 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).

## **9.7 Expiry of Term of licence**

9.7.1 Upon expiry or termination of the licence in respect of the CDN and the removal of the Requesting Licensee's Underground Equipment, SingTel shall verify and restore the state of the CDN. The Requesting Licensee shall pay all the reasonable costs incurred by SingTel in verifying and restoring the state of the CDN including the costs of updating SingTel's records, other than in circumstances where the Requesting Licensee's discontinuation of the use of the CDN is a direct result of SingTel's decommissioning of the CDN under clause 18.5 of Schedule 13.

## **9.8 Charges**

9.8.1 Prices for the CDN are as follows:

DESCRIPTION	CHARGES (S\$)
<b>Ordering and Provisioning Charges (excluding site survey Charges)</b> Per order <sup>30</sup> Per order (applicable where the application is rejected by SingTel pursuant to clause 4.2 of Schedule 13)	88.21 15.63
<b>Modified Underground Equipment</b> Application Fee (per Lead-in Manhole)	<b>on a case-by-case basis</b>
<b>IRU Charges</b> Per duct	914,000
<b>O&amp;M Charges (to be paid as a lump sum annually)</b> Per duct per year <u>Year</u> 2020 – 2022 2023 – 2025 2026 – 2028 2029 – 2031 2032 – 2034 2035 – 2037 2038 – 2040 Every 3 years	73,120 76,776 80,615 84,646 88,878 93,322 97,988 Increase by 5%
<b>Construction of Connection Duct (per Connection Duct) - 1m of 110mm diameter Connection Duct</b>  <b>LTA road work application and other related fees</b>	1,449  on a case-by-case basis

<sup>30</sup> This charge will not apply where the order is rejected pursuant to clause 4.2 of Schedule 13.

DESCRIPTION	CHARGES (S\$)
<b>Miscellaneous Charges<sup>31</sup></b>	
<b>Site survey/site meeting – Half Day</b>	257.58
<b>Site survey/site meeting – Full Day</b>	515.15
Contractor Cost for Manhole Site Survey – per manhole	782.88
<b>Manpower Cost</b>	
<b>Escort Service for Physical Access</b>	
During Office Hours (Minimum 2 hrs) – per hour	46.10
After Office Hours (Minimum 2 hrs) – per hour	69.15
After Office Hours (Minimum 4 hrs if recalled from home) – per hour	69.15
Saturday (Minimum 4 hrs) – per hour	69.15
Sunday (requiring < 4 hrs) – per activation	405.71
Sunday (requiring > = 4 hrs) – per activation	811.42
Public Holiday – per activation	737.65
For all recalls/activations, the Requesting Licensee shall reimburse SingTel for its staff's reasonable transportation claim	
<b>Physical Access/Emergency Physical Access</b>	
Application Fee (Per request)	13.79
<b>Updating Master List</b>	
Administrative Fee (per form)	13.79
<b>Reconnection Charges</b>	
Per Reconnection Request <sup>32</sup>	on a case-by-case basis

<sup>31</sup> These charges will apply for site inspections performed by SingTel during project studies or upon additional requests from Requesting Licensees.

<sup>32</sup> These charges shall apply in the event of the lifting of suspension of this RIO Agreement or Schedule 13.

DESCRIPTION	CHARGES (\$)
<p><b>Termination Charges</b></p> <p>Per Termination Request including recovery of Equipment, M&amp;E works (where applicable) upon termination of CDN</p>	<p>on a case-by-case basis</p>