

APPENDIX 6 & 7

REQUIRED MODIFICATIONS TO SCHEDULES 8A & 8B

IDA Directed Modifications: As any of the Co-Location Space obtained under either Schedule 8A or Schedule 8B can be used for the same purposes, which is to establish a POI and/or a POA, for better clarity, IDA considers that Schedules 8A and 8B should be merged into one Schedule instead.

Accordingly, unless SingTel can justify to IDA otherwise, IDA directs SingTel to propose, for IDA's approval, modifications to Schedules 8A and 8B to merge them into one Schedule, including the annexes to the schedules, and where applicable, to the other provisions in the RIO Agreement as a consequence of amendments to Schedules 8A and 8B.

SingTel: SingTel has merged the provisions in relation to Co-Location Space obtained for the purpose of POI and/or a POA into this Schedule 8A, and separated the offer of access to SingTel's Exchange Building for the purpose of access to Mandated Services to Schedule 8B.

SCHEDULE 8A
CO-LOCATION FOR POINT OF INTERCONNECTION (POI) OR
POINT OF ACCESS (POA)

SCHEDULE 8A

CO-LOCATION FOR POINT OF INTERCONNECTION (POI) OR POINT OF ACCESS (POA)

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SCHEDULE 8A

CO-LOCATION FOR POINT OF INTERCONNECTION (POI) OR POINT OF ACCESS (POA)

1. GENERAL

- 1.1 Two types of Co-Location are available under this Schedule for Requesting Licensees, these being either or both of:
- (a) Co-Location at a Co-Location Site for a Point of Interconnection (**POI**); and
 - (b) Co-Location at a Co-Location Site for a Point of Access (**POA**).
- 1.2 This Schedule sets out the terms and conditions under which SingTel will provide the Requesting Licensee with Co-Location Space at Co-Location Sites for the purpose of either or both:
- (a) Co-Location at a Co-Location Site for a POI, as further detailed in clause 1.3; and
 - (b) Co-Location at a Co-Location Site for a POA, as further detailed in clause 1.4.
- 1.3 Where Co-Location Space is sought at a Co-Location Site for a POI, SingTel will provide Co-Location for the purpose of either or both of:
- (a) establishing Physical Interconnection between the respective Networks of each Party; and
 - (b) providing local connectivity services to other Licensees for the purpose of Interconnection.
- 1.4 Where Co-Location Space is sought by a Requesting Licensee at a Co-Location Site for a POA, SingTel will provide Co-Location to the Requesting Licensee for the purpose of allowing the Requesting Licensee to either or both:
- (a) access the Local Loop, Sub Loop, Shared Line and Tail Circuit it leased under Schedule 3A, 3B and 4C; and
 - (b) provide local connectivity services to other Licensees for the purpose of accessing Local Loop, Sub Loop, Shared Line and Tail Circuit leased by the other Licensees under Schedule 3A, 3B and 4C.

1.5 Except as provided in this Schedule, the Requesting Licensee shall, at its own cost, provide all installation materials and manpower needed for the installation of its Co-Location Equipment. Where certain work is to be carried out by SingTel under this Schedule, and the Charge is not defined under Schedule 9, the Requesting Licensee must pay all the reasonable costs (as determined by SingTel) incurred by SingTel, subject to the following conditions:

- (a) the costs incurred by SingTel relate to the work that SingTel needs to be performed in order to provide the Co-Location Space at a Co-Location Site for POI or POA;
- (b) before incurring the costs in clause 1.5(a), SingTel will provide the Requesting Licensee with prior reasonable notice that the Requesting Licensee's request under this clause requires SingTel to undertake such work and such notice shall clearly, and with sufficient detail, set out the following:
 - (i) the reasonable costs which SingTel seeks to recover from the Requesting Licensee in respect of the costs incurred by SingTel (including a breakdown of the individual cost components and justification for incurring each cost component); and
 - (ii) based on the information set out in paragraph (i), a binding quotation to the Requesting Licensee which will be valid for a period of five (5) Business Days from the date they are notified to the Requesting Licensee by SingTel;
- (c) If the Requesting Licensee wants SingTel to provide the applicable Co-Location Space (or access to such) at a Co-Location Site for POI or POA, then the Requesting Licensee must provide SingTel with its approval of the quotation in clause 1.5(b)(ii) within five (5) Business Days. If the Requesting Licensee does not notify SingTel within that time period, or notifies SingTel that it does not approve of the quotation within that time period, then SingTel may suspend SingTel's work under this clause 1.5 until the Requesting Licensee agrees; and
- (d) any dispute in respect of determining the reasonable costs set out in the notice shall be resolved in accordance with Schedule 11 of the RIO Agreement.

1.6 The list of Co-Location Sites as at the date of this RIO Agreement for POIs and POAs is listed in [Annex 8A.1](#)~~Annex 8A-1~~.

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1.7 SingTel may vary the Co-Location Sites listed in ~~Annex 8A.1~~Annex 8A.4 from time to time with the approval of the Authority.

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1.8 SingTel shall not be responsible for any damage to the Requesting Licensee's Co-Location Equipment (or lack of access to such) caused by fire, water leakage, air-conditioning/mechanical ventilation failure, power fluctuation/interruption, or anything beyond SingTel's control at the Co-Location Site other than to the extent that it is the result of a grossly negligent, wilful or reckless breach of this RIO Agreement by SingTel.

1.9 This Schedule 8A only applies to Requesting Licensees who are FBOs.

1.10 The timeframes in this Schedule relating to provisioning work for Co-Location Space at a Co-Location Site to be undertaken by SingTel under clauses ~~3.53-4~~ and ~~3.73-6~~ (**Co-Location Requests**), 4.1 (**Project Studies**), 5.1 (**Site Preparation Work**) and 11.2 (**Modified Co-Location Equipment**) are subject to delays caused by events outside SingTel's reasonable control, in which case such failure to meet the timeframes shall not constitute a breach of this RIO Agreement and clause 1.11 shall not apply, provided that SingTel must notify the Requesting Licensee as soon as practicable upon the occurrence of such event, stating the cause of the events and specifying a new date for completion of the relevant provisioning work which is extended for the period of such delays.

1.11 SingTel will provide the Service Level Guarantees in respect of licensing of Co-Location Space as set out in ~~Annex 8A.2~~Annex 8A.2. If SingTel fails to meet any Service Level Guarantees applicable to this Schedule, and the failure to meet Service Level Guarantees is solely caused by SingTel, then SingTel will provide a remedy to the Requesting Licensee in accordance with:

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(a) section 1 of ~~Annex 8A.2~~Annex 8A.2 and any terms and conditions contained therein in respect of Co-Location Request timeframes;

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(b) section 2 of ~~Annex 8A.2~~Annex 8A.2 and any terms and conditions contained therein in respect of Project Study timeframes;

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(c) section 3 of ~~Annex 8A.2~~Annex 8A.2 and any terms and conditions contained therein in respect of timeframes for Site Preparation Work;

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(d) section 4 of ~~Annex 8A.2~~Annex 8A.2 and any terms and conditions contained therein in respect of timeframes for Modified Co-Location Equipment; and

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- (e) section 5 of ~~Annex 8A.2~~ Annex 8A.2 in respect of claims made under ~~Annex 8A.2~~ Annex 8A.2.

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- 1.12 The Requesting Licensee acknowledges that the relevant remedy provided under clause 1.11 is a genuine pre-estimate of the Requesting Licensee's loss and will be the sole and exclusive remedy available to the Requesting Licensee for such failure to meet the relevant Service Level Guarantees for Co-Location Space at a Co-Location Site and shall be SingTel's sole and exclusive liability to the Requesting Licensee for such failure.

2. AVAILABILITY AT A CO-LOCATION SITE

- 2.1 For the purposes of this Schedule, SingTel may have regard to the following when assessing the availability of Co-Location Space at a Co-Location Site:

- (a) SingTel's reasonably anticipated requirements in the next one (1) year for space at the Co-Location Site for the provision to itself and its Customers;
- (b) SingTel's reasonably anticipated requirements in the next one (1) year for space at the Co-Location Site for operation and maintenance purposes;
- (c) the Requesting Licensee and other Third Party requirements (including for operation and maintenance purposes) which have been ordered but not yet delivered or which have been provided;
- (d) security and confidentiality requirements or restrictions imposed on SingTel by Governmental Agencies; and
- (e) whether SingTel has plans or otherwise proposes to decommission the Co-Location Site within six (6) months of the date of the Co-Location Request.

2A. SINGTEL EXCHANGE RELATED INFORMATION

- (a) This clause 2A is only applicable to Co-Location at a Co-Location Site for a POA.
- (b) The Requesting Licensee may request that SingTel provide the Requesting Licensee with the SingTel Exchange Related Information by submitting its request in the form set out in ~~Annex 8A.4~~ Annex 8A.4.

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- (c) SingTel will process all requests for the SingTel Exchange Related Information on a non-discriminatory “first come first served” basis.
- (d) SingTel must provide the SingTel Exchange Related Information within fifteen (15) Business Days of the date of receipt of the request. SingTel may provide the Requesting Licensee with the SingTel Exchange Related Information on a progressive basis during the fifteen (15) Business Days period.
- (e) The Requesting Licensee must pay all Charges in relation to a request for the SingTel Exchange Related Information in accordance with Schedule 9 of the RIO Agreement.
- (f) The Requesting Licensee acknowledges that the SingTel Exchange Related Information is the Confidential Information of SingTel and that the Requesting Licensee must comply with clause 23 of the main body of the RIO Agreement in relation to such information. The Requesting Licensee must only use the SingTel Exchange Related Information for the sole and exclusive purpose of acquiring Co-Location Space under this Schedule.
- (g) SingTel warrants that the SingTel Exchange Related Information is accurate as at the date of providing the information to the Requesting Licensee. The Requesting Licensee acknowledges that the details of the SingTel Exchange Related Information may change from time to time without notice to the Requesting Licensee.

3. ORDERING AND PROVISIONING PROCEDURE

3.1 The Requesting Licensee shall submit its request for Co-Location Space at a Co-Location Site for a POI or POA listed in [Annex 8A.1](#)~~Annex 8A.1~~ using a Co-Location Request Form in the form of Attachment G, containing the following information:

- (a) the Co-Location Site listed in [Annex 8A.1](#)~~Annex 8A.1~~ at which Co-Location Space is sought;
- (b) where that Co-Location Space is sought for the purpose of:
 - (i) Interconnection for a POI;
 - (ii) connection of Local Loop, Sub Loop or Shared Line licensed or to be licensed under Schedules 3A and 3B (as the case may be); or

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(iii) connection of Tail Circuits licensed or to be licensed under Schedule 4C;

the type of Co-Location Equipment proposed to be installed at that Co-Location Site;

- (c) the space (subject to clause 3.2) and power requirements;
- (d) the floor loading of the Co-Location Equipment;
- (e) the type of optical fibre cable to be used, and the diameter of the fibre cable;
- (f) the Requesting Licensee's contact details;
- (g) in the case of the Co-Location at a Co-Location Site for a POI, the capacity of the Transmission Tie-Cable;
- (h) in the case of Co-Location for connection to Local Loop or Sub Loop under Schedule 3A, the capacity of the Subscriber Tie Cable;
- (i) in the case of Co-Location for connection to Tail Circuits, the quantities and specifications for each of:
 - (i) the n x 64 Kbps Tie Cables (in multiples of two (2) pairs for IRS Tail Circuit Services for below 2 Mbps bandwidth);
 - (ii) the 2 Mbps Tie Cables (in multiples of four (4) pairs for IRS Tail Circuit Services for 2 Mbps bandwidth); and
 - (iii) the coaxial/fibre Tie Cables (in multiples of two (2) for IRS Tail Circuit Services for 45 Mbps and 155 Mbps bandwidth).

3.2 If the Requesting Licensee wishes to install fibre cables or patch cords on SingTel's facilities between the Requesting Licensee's Co-Location Equipment and the Co-Location Equipment of another FBO Licensee within the same Co-Location Space for the purpose of the Requesting Licensee providing local connectivity services to the other Requesting Licensee, the Requesting Licensee shall submit a request for the installation of the fibre cables or patch cords using the form set out in [Annex 8A.5](#).

- (a) The Requesting Licensee shall provide, at its own cost, the fibre cables or patch cords.

- (b) SingTel shall use its reasonable endeavours to complete installation of the fibre cables or patch cords no later than thirty (30) Calendar Days from the date of receiving the Requesting Licensee's request.
- (c) SingTel shall not be responsible for the termination of the fibre cables or patch cords to the Co-Location Equipment of the Requesting Licensee nor that of the other Requesting Licensees.
- (d) The Requesting Licensee shall pay SingTel the following Charges for the installation of the fibre cables or patch cords in accordance with Schedule 9:
 - (i) the one-time Charges for the processing of the request;
 - (ii) the Project Study fee;
 - (iii) the one-time Charges for the installation of the fibre cables or patch cords; and
 - (iv) the one-time Charges for the installation of additional cable trays or ladders where necessary.

SingTel: Pursuant to the IDA's directed modifications, SingTel proposes the above modifications.

3.3 The Requesting Licensee must request space at a Co-Location Site of a minimum of one (1) square metre to a maximum of ten (10) square metres.

3.4 The Requesting Licensee must ensure that its Co-Location Equipment at the Co-Location Space does not exceed a heat load limit of 900 watts per square metre of its Co-Location Equipment footprint.

SingTel: The cooling capacity of a building is limited by the power supply to the building and the space available within a building to accommodate the cooling plants. A heat load limit is necessary due to the practical limitation of the cooling capacity that the SingTel Exchange building is designed for, limited by the power supply from Power Grid and the physical space constraints.

Equipment generates heat which requires cooling. The heat load limit is therefore derived based on the generator capacity available to support the equipment for a particular

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exchange divided by the gross floor area utilized for equipment rooms in the exchange.
The generator capacity is subjected to IDA's audit.

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3.5 Within one (1) Business Day of the date of receiving the Co-Location Request Form (**Request Date**), SingTel must notify the Requesting Licensee whether its application is accepted or rejected via any of the contact details that the Requesting Licensee has provided in the Co-Location Request Form. SingTel shall recover the Co-Location Request fee for the reasonable cost of processing the Co-Location Request as provided in Schedule 9, irrespective of the outcome of the Co-Location Request. For the purposes of this Schedule 8A, the Request Date shall be determined as follows:

- (a) if the Co-Location Request Form is received before 12:00 noon on a Business Day, the Request Date is the Business Day the Co-Location Request Form is received; or
- (b) if the Co-Location Request Form is received at or after 12:00 noon on a Business Day, the Request Date is the next Business Day after the Business Day on which the Co-Location Request Form is received.

3.6 SingTel may reject a Co-Location Request Form if:

- (a) the Requesting Licensee is not an FBO; or
- (b) the Co-Location Request Form is not in the prescribed form; or
- (c) the Co-Location Request Form does not contain all the required information; or
- (d) the space requested is not within the limits prescribed by clause 3.2.

Where SingTel rejects the Co-Location Request Form, SingTel must provide reasons explaining the basis for rejection.

3.7 If SingTel notifies the Requesting Licensee that SingTel has accepted the Co-Location Request Form, SingTel must complete its detailed processing and inform the Requesting Licensee within three (3) Business Days of the Request Date, whether or not it is able to provide the Co-Location Space taking into account the following:

- (a) whether or not the Co-Location Space at a Co-Location Site is available as determined under clause 2; and
 - (b) whether the provision of Co-Location Space at a Co-Location Site will give rise to significant health, safety, technical or engineering issues.
- 3.8 Where SingTel informs the Requesting Licensee that SingTel is unable to provide the Co-Location spaces at the Co-Location Site because of unavailability under clause ~~3.7(a)3-6(a)~~ and/or because clause ~~3.7(b)3-6(b)~~ applies, SingTel must provide reasons explaining the basis for its decision.
- 3.9 The Requesting Licensee acknowledges that the Co-Location Space allocated and the actual placement of the Co-Location Equipment shall be determined by SingTel. SingTel is not obligated to place the same Requesting Licensee's Co-Location Equipment adjacent to each other, provided that SingTel will use its reasonable endeavours to accommodate any reasonable request for adjacent placement made by the Requesting Licensee.
- 3.10 SingTel shall process all Co-Location Requests on a "first come, first served" basis up to the maximum amount specified in clause ~~3.113-10~~.
- 3.11 SingTel shall process a combined total of no more than three (3) Co-Location Requests under Schedules 8A, 8B and 8D per week and any additional requests shall overflow to the next week. SingTel shall inform the Requesting Licensee of that overflow within one (1) Business Day of the Request Date.

4. PROJECT STUDY

- 4.1 Except where SingTel has rejected a Co-Location Request under clause ~~3.63-5~~ or where SingTel has notified that a Co-Location Space at a Co-Location Site is not available under clause ~~3.73-6~~, SingTel must complete a Project Study within fifteen (15) Business Days of the Request Date. The Requesting Licensee must pay the Project Study fee specified in Schedule 9.
- 4.2 The Project Study normally entails at least two (2) site visits:
- (a) a preliminary site survey by SingTel to determine and assess the space, power, earth, fibre routing, routing of Transmission Tie Cable or Subscriber Tie Cable (where applicable) and any Site Preparation Works required for Co-Location; and
 - (b) a joint site survey with the Requesting Licensee.

4.3 Following completion of the Project Study within the timeframe under clause ~~4.14.1~~, SingTel shall provide the Requesting Licensee with the following information ascertained as a result of the Project Study:

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- (a) the estimated Charges for the Site Preparation Work (including a breakdown of the major components of the Charges), and an outline of the major elements of the Site Preparation Work to be undertaken by SingTel;
- (b) the location of the designated Lead-in Manhole and the direction of the Connection Duct;
- (c) the estimated length of fibre cable required from the Lead-in Manhole to the Co-Location Space;
- (d) the number of Business Days (which shall not exceed 25 Business Days as specified in clause ~~5.35.3~~) reasonably expected to complete the Site Preparation Work; and
- (e) in respect of Co-Location Space at a Co-Location Site for a POI, the length of the Transmission Tie-Cable; and
- (f) in respect of Co-Location Space at a Co-Location Site for a POA:
 - (i) the type and length of Tie Cable required from Requesting Licensee's termination frame to SingTel's distribution frame; and
 - (ii) in the case of Co-Location in relation to Tail Circuits, the length and associated connectors for each of:
 - A. the n x 64 Kbps Tie Cables (for below 2 Mbps bandwidth);
 - B. the 2 Mbps Tie Cables (for 2 Mbps bandwidth); and/or
 - C. the coaxial/fibre Tie Cables (for 45 Mbps and 155 Mbps bandwidth).

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4.4 SingTel shall be entitled to levy and receive the Project Study Fee provided in Schedule 9 irrespective of whether the Requesting Licensee proceeds with the Co-Location Request after completion of the Project Study.

5. SITE PREPARATION WORK

- 5.1 Within five (5) Business Days from the date of notification of the result of the Project Study under clause 4.3, the Requesting Licensee shall confirm in writing that it wishes to proceed with Co-Location and it agrees to pay the estimated Charges for Site Preparation Work. SingTel shall use its reasonable endeavours to complete the Site Preparation Work within the estimated charges. If SingTel's costs increase above SingTel's estimate set out in the notice under clause ~~4.3(a)~~4.3(a) (as may be varied from time to time under this clause 5.1), SingTel must as soon as possible provide the Requesting Licensee with a revised price estimate. SingTel must obtain the prior approval of the Requesting Licensee to the revised price estimate and if the Requesting Licensee does not provide its approval, then SingTel may suspend the Site Preparation Work until the Requesting Licensee agrees to the revised price estimate. SingTel shall complete the Site Preparation Work within the period advised under clause 5.3. If SingTel is unable to complete the Site Preparation Work within the advised period, SingTel shall promptly notify the Requesting Licensee of a revised date for completion (which, in all the circumstances, shall be within a reasonable period of time). SingTel shall provide the Requesting Licensee with a remedy for the duration of the delay in accordance with clause ~~1.11~~1.11.
- 5.2 As part of the Site Preparation Work, SingTel shall, or provide adequate access for the Requesting Licensee to:
- (a) construct two (2) 110mm Connection Ducts of one (1) metre from the designated Lead-in Manhole in the direction indicated in clause 4.3(b) for the Requesting Licensee to connect its ducts; and
 - (b) construct the duct seal for the Connection Ducts constructed in SingTel's Lead-in Manhole.
- 5.3 SingTel shall complete any Site Preparation Work within a period of twenty five (25) Business Days of the date on which the Requesting Licensee notifies SingTel under clause 5.1 that it wishes to proceed with Co-Location and agrees to pay estimated charges. Subject to delays that may result from suspension of Site Preparation Work under clause 5.1, if SingTel is not able to complete the Site Preparation Work within the timeframe under this clause 5.3, SingTel shall inform the Requesting Licensee of when the Site Preparation Work will be completed. The Requesting Licensee may seek a remedy for any delay in completing the Site Preparation Work in accordance with clause 1.11.

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5.4 SingTel will endeavour to notify the Requesting Licensee within one (1) Business Day after the completion of the Site Preparation Work to request the Requesting Licensee to attend the Co-Location Site for a final site inspection of the Co-Location Space.

6. INSTALLATION AND MAINTENANCE OF CO-LOCATION EQUIPMENT IN CO-LOCATION SPACE

6.1 The Parties agree to comply with the following procedures in connection with the installation and maintenance of Co-Location Equipment:

- (a) the Co-Location Equipment Installation and Maintenance Procedures at Attachment A, as amended by SingTel from time to time;
- (b) the Standard Operating Procedures at Attachment B, as amended by SingTel from time to time; and
- (c) the Physical Access Procedures at Attachment C, and as amended by SingTel from time to time.

6.2 In addition, in the case of Co-Location at a Co-Location Site for a POA only, SingTel shall:

- (a) install and terminate the Subscriber Tie Cable; and
- (b) provide the distribution frame required for the routing of the Requesting Licensee's IRS Tail Circuit Service and perform the physical installation and termination of the Requesting Licensee's cabling to SingTel's distribution frame. However, the Requesting Licensee shall be responsible for all terminations at its own equipment and for providing the associated cabling and connectors between the Requesting Licensee's Equipment and SingTel's distribution frame in order to facilitate the physical termination of the link to SingTel's distribution frame.

6.3 The Requesting Licensee shall pay SingTel in accordance with Schedule 9 the following Charges:

- (a) in relation to Co-Location at a Co-Location Site for a POI:
 - (i) the one-time Charges for the installation of fibre cables; and

- (ii) the one-time Charges for the installation and termination of Transmission Tie-Cables;
- (b) in relation to Co-Location at a Co-Location Site for a POA:
 - (i) the one-time Charges for the installation of the fibre cables;
 - (ii) the one-time Charges for the installation and termination of the Requesting Licensee's Tie Cables; and
 - (iii) the recurring Charges for the lease of the Subscriber Tie Cable.

6.4 Where any diversion or maintenance of existing cable trays or ladders used for the purpose under this Schedule requires the installation of new cable trays or ladders within SingTel's Exchange Building, the affected Requesting Licensees will bear the costs associated with such installation, proportionately, based on each Requesting Licensee's usage, subject to the following conditions:

- (a) the costs incurred by SingTel will relate to the work that SingTel needs to perform in order to continue the Co-Location Space licence;
- (b) before incurring the costs and subject to clause 6.5, SingTel will provide the Requesting Licensee with one (1) month prior notice and such notice shall clearly and with sufficient detail set out the following:
 - (i) the reasonable costs which SingTel seeks to recover from the Requesting Licensee in respect of the costs incurred by SingTel (including a breakdown of the individual cost components and the justification for incurring each cost component; and
 - (ii) based on the information set out in paragraph (i), a binding quote to the Requesting Licensee in respect of the work to be undertaken by SingTel which shall be valid for a period of five (5) Business Days from the date they are notified to the Requesting Licensee by SingTel, and
- (c) the Requesting Licensee shall not unreasonably withhold its agreement.

6.5 If SingTel reasonably considers that diversion or maintenance of existing cable trays or ladders is required to avoid or mitigate any loss, damage or threat to the Network, or personal injury, SingTel will immediately, and without prior notice to the Requesting Licensee, perform the diversion or maintenance of existing cable

trays or ladders. The affected Requesting Licensees will bear the costs associated with such diversion or maintenance, proportionately, based on each Requesting Licensee's usage.

SingTel: Pursuant to the IDA's directed modifications, SingTel proposes the above modifications.

7. TERM OF LICENCE

7.1 The term of a Co-Location Space licence granted under this Schedule shall commence on the date of completion of the Site Preparation Work (**Commencement Date**) and continues for the term of the RIO Agreement until the earlier of any of the following events:

- (a) either party terminates the Co-Location Space licence in accordance with clause 9 of this Schedule;
- (b) the SingTel RIO is revoked by the Authority under clause 13.7 of the RIO Agreement;
- (c) the Authority removes the requirement for SingTel to provide Co-Location Space under the SingTel RIO or exempts SingTel from providing Co-Location Space under clause 13.8 of the RIO Agreement; or
- (d) subject to clause 7.2, the Requesting Licensee terminates the Co-Location Space licence by giving SingTel not less than one (1) month prior notice.

7.2 The Requesting Licensee may terminate the Co-Location Space licence on less than one (1) month prior written notice, provided that the Requesting Licensee shall be liable to SingTel for the recurring fees under the Co-Location Space licence for the period between the date of termination and the date that is one (1) month after the notice of termination.

8. SUSPENSION OF LICENCE

8.1 Subject to clause 12.2 of the RIO Agreement SingTel may suspend the Requesting Licensee's Co-Location Space licence at any time until further notice to the Requesting Licensee if the Co-Location Equipment causes or is likely to cause physical or technical harm to any telecommunications network, system or services (whether of SingTel or any other person) including but not limited to

causing damage, interfering with or causing deterioration in the operation of SingTel's Network.

- 8.2 Without limiting the exclusions or limitations of liability in this RIO Agreement, SingTel shall not be liable to the Requesting Licensee for any Loss resulting from, or in connection with, suspension of access to Co-Location Space under this clause 8.

9. TERMINATION OF LICENCE

- 9.1 SingTel may terminate the Co-Location Space licence at any time with immediate effect by giving notice to the Requesting Licensee if the Requesting Licensee fails to complete the installation of its Co-Location Equipment within thirty (30) Business Days under Attachment A. If the Requesting Licensee's failure to complete installation is attributable to circumstances beyond the Requesting Licensee's reasonable control, SingTel will grant a reasonable extension of time for installation to the Requesting Licensee at the Requesting Licensee's request. A Requesting Licensee's request under this clause must describe the circumstances beyond the Requesting Licensee's control and such request must be received prior to the expiry of the aforementioned thirty (30) Business Days period. SingTel must respond to the Requesting Licensee's request under this clause 9.1 within two (2) Business Days from the date of receipt of such request.

- 9.2 Subject to clause 13.2 of the RIO Agreement, either Party (**Terminating Party**) may immediately terminate a Co-Location Space licence at a Co-Location Site if the other Party is in breach of this Schedule and such breach remains unremedied for a period of:

- (a) seven (7) Calendar Days after receiving notice from the Terminating Party to do so, if the breach is a service affecting breach; and
- (b) fourteen (14) Calendar Days after receiving notice from the Terminating Party to do so, if the breach is a non-service affecting breach (including but not limited to failure to pay any sum for which the Requesting Licensee has been invoiced).

- 9.3 Subject to clause 13.2 of the RIO Agreement, SingTel may immediately terminate a Co-Location Space licence at a Co-Location Site if:

- (a) the Requesting Licensee is no longer an FBO;

- (b) in SingTel's reasonable opinion, the Requesting Licensee is using the Co-Location Space in contravention of an applicable law, licence, code, regulation or direction and SingTel has the necessary confirmation from the relevant Governmental Agencies that the Requesting Licensee is in contravention of the applicable law, licence, code, regulation or direction;
 - (c) the Co-Location Space licence causes or is likely to cause physical or technical harm to the SingTel Network or Co-Location Site, including but not limited to causing damage, interfering with or causing deterioration in the operation of the SingTel Network;
 - (d) the Co-Location Equipment is used for a purpose other than:
 - (i) in accordance with clause 1.3 (in the case of Co-Location at a Co-Location Site for a POI); or
 - (ii) in accordance with clause 1.4 (in the case of Co-Location at a Co-Location Site for a POA);
 - (e) in respect of Co-Location at a Co-Location Site for a POA, the Requesting Licensee's Co-Location Equipment is not connected in respect of access to Local Loop, Sub Loop, Shared Line and/or connection to Tail Circuits supplied in accordance with this RIO Agreement;
 - (f) the Requesting Licensee locates equipment other than Co-Location Equipment in the Co-Location Space;
 - (g) the Co-Location Space has become unsafe for its purpose; or
 - (h) SingTel's right to own, maintain or operate the Co-Location Site is revoked or terminates or expires.
- 9.4 Subject to clause 13.2 of the RIO Agreement, SingTel may terminate the Co-Location Space licence at a Co-Location Site on ten (10) Business Days' prior written notice, if the Requesting Licensee removes or abandons its Co-Location Equipment and the Requesting Licensee did not dispute such written notice by SingTel.
- 9.5 If at any time during the term that the licence at a Co-Location Space is to be terminated because of the closure of that Co-Location Site, SingTel must give the Requesting Licensee prior written notice within three (3) Business Days upon

receipt of the Authority's approval to amend this Schedule to effect the closure of the Co-Location Site. In the event of a closure of a Co-Location Site, SingTel must take reasonable measures to minimise disruptions to the Requesting Licensee in the provision of its services to End Users. The Requesting Licensee shall bear its own cost associated with the closure of a Co-Location Site.

- 9.6 In respect of Co-Location Space at a Co-Location Site for a POA, in the event that the Requesting Licensee requests assistance from SingTel within thirty (30) Business Days after receiving a notice under clause 9.5 to provide an alternative solution to the Co-Location Space which is being terminated, SingTel will use its reasonable endeavours in providing such assistance. The Requesting Licensee shall remain solely responsible for making any alternative arrangements as are necessary to continue to provide its Customers with services. Nothing in this clause prevents SingTel from terminating the licence at a Co-Location Space at the end of the six (6) months' notice period under this clause provided that SingTel has complied with this clause 9.6.
- 9.7 In respect of Co-Location Space at a Co-Location Site for a POI, if the Requesting Licensee requests within thirty (30) Business Days after receiving a notice under clause 9.5 alternative solutions from SingTel, SingTel will offer alternative interconnection solutions to the Requesting Licensee. The alternative interconnection solutions offered must, to the extent feasible, be comparable in terms of cost and functionality and, if accepted by the Requesting Licensee within sixty (60) Calendar Days from the date of the offer, must permit the full implementation of the alternative interconnection solutions. Nothing in this clause prevents the Decommissioning from occurring on the expiry of the Decommissioning period provided that the Decommissioning Party has complied with this clause 9.7.
- 9.8 Upon expiry or termination of the Co-Location Space licence:
- (a) the Requesting Licensee must discontinue the use of its Co-Location Equipment and remove its Co-Location Equipment from the Co-Location Site immediately; and
 - (b) SingTel shall reinstate the Co-Location Space and recover/reinstate all cables/supports/openings and recover the reasonable cost of such reinstatement from the Requesting Licensee, other than in circumstances where the Requesting Licensee's discontinuation of the use of the Co-Location Equipment is a direct result of SingTel's decommissioning of the Co-Location Site under this Schedule 8A.

9.9 If the Requesting Licensee fails to discontinue the use of its Co-Location Equipment and remove its Co-Location Equipment under clause ~~9.89-8~~, SingTel shall remove the Requesting Licensee's Co-Location Equipment and reinstate the Co-Location Site to its original condition. The Requesting Licensee shall pay to SingTel all reasonable costs associated with the work undertaken by SingTel including the disposal of the Co-Location Equipment. In such event, the Requesting Licensee shall have no claim whatsoever against SingTel related to or in connection with the work undertaken by SingTel.

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9.10 Upon termination of the Co-Location Space licence, any physical access granted to the Co-Location Site shall also be terminated.

10. SUB-LICENSING

10.1 The Requesting Licensee must not assign the licence in respect of or sub-let the Co-Location Space at the Co-Location Site.

11. MODIFICATION AND ADDITION OF CO-LOCATION EQUIPMENT

11.1 If the Requesting Licensee wishes to replace, modify or rearrange existing Co-Location Equipment in the Co-Location Space or to install additional Co-Location Equipment in the Co-Location Space (**Modified Co-Location Equipment**), the Requesting Licensee must submit a request in respect of that Modified Co-Location Equipment. The Requesting Licensee shall be liable for all costs incurred by SingTel in processing a request for Modified Co-Location Equipment under this clause 11.1. The request must contain the following information:

- (a) purpose of replacement, modification or rearrangement;
- (b) date, time and duration of replacement, modification or rearrangement;
- (c) detailed description of works and process to be carried out in the Co-Location Space;
- (d) the Co-Location Equipment to be installed, replaced, modified or rearranged;
- (e) any assistance required from SingTel (subject to approval and charges);
- (f) a description of the precautions on how the Requesting Licensee would ensure that the replacement, modification, rearrangement or addition would not affect any SingTel plant or equipment; and

(g) any other information which the Requesting Licensee believes would be useful to SingTel in assessing the Requesting Licensee's request.

11.2 Within five (5) Business Days of the receipt of the request for Modified Co-Location Equipment, SingTel must notify the Requesting Licensee whether its request for Modified Co-Location Equipment is accepted or rejected. If SingTel does not meet the timeframe under this clause ~~11.211.2~~ it shall provide the Requesting Licensee with a remedy for the duration of the delay under clause 1.11(d). SingTel may reject the request for Modified Co-Location Equipment if SingTel reasonably believes that:

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(a) the replacement, modification and rearrangement under the request for Modified Co-Location Equipment may affect the operation of SingTel's or any Third Party's equipment or plant; or

(b) SingTel will be required to perform any work or any additional services such as power or Co-Location Space.

11.3 If SingTel rejects the Requesting Licensee's request for Modified Co-Location Equipment under clause ~~11.211.2~~, the Requesting Licensee may submit a separate Co-Location Request in respect of the Requesting Licensee's Modified Co-Location Equipment, which shall be processed by SingTel pursuant to this Schedule 8A.

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11.4 For the avoidance of doubt, requests for additional Co-Location Space at a Co-Location Site shall be treated as a separate Co-Location Request and the process of ordering and provisioning in this Schedule 8A shall apply.

11.5 Subject to the applicable minimum quantities specified, any request for additional Tie Cables shall be submitted to SingTel using a Request For Additional Tie Cables Form set out in ~~Annex 8A.3~~~~Annex 8A.3~~. SingTel will use reasonable endeavours to provide the additional Tie Cables no later than thirty (30) Calendar Days from the date of receiving the Requesting Licensee's request. The Requesting Licensee shall pay SingTel, in accordance with Schedule 9:

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(a) the one-time Charges for the processing of the request;

(b) the Project Study fee;

(c) the one-time Charges for the installation of the additional Tie Cables;

- (d) the recurring Charges for the Subscriber Tie Cable, where applicable; and
- (e) the one-time Charges for the installation of cable trays or ladders where necessary.

SingTel: Pursuant to the IDA's directed modifications, SingTel proposes the above modifications.

ANNEX 8A.1

LIST OF POSSIBLE CO-LOCATION SITES FOR A POI

| Serial Number | Description of POI Co-Location Site |
|----------------------|--|
| 1 | City Telephone Exchange |
| 2 | East Telephone Exchange |
| 3 | Geylang Telephone Exchange |
| 4 | Hougang Telephone Exchange |

LIST OF POSSIBLE CO-LOCATION SITES FOR A POA

| Serial Number | Description of POA Co-Location Site |
|----------------------|--|
| 1 | Ang Mo Kio Telephone Exchange |
| 2 | Ayer Rajah Telephone Exchange |
| 3 | Bedok Telephone Exchange |
| 4 | Bukit Panjang Telephone Exchange |
| 5 | Changi Telephone Exchange |
| 6 | Central Telephone Exchange |
| 7 | East Telephone Exchange |
| 8 | Geylang Telephone Exchange |
| 9 | Hougang Telephone Exchange |
| 10 | Jurong East Telephone Exchange |
| 11 | Jurong Telephone Exchange |
| 12 | Jurong West Telephone Exchange |
| 13 | Katong Telephone Exchange |
| 14 | North Telephone Exchange |
| 15 | Paya Lebar Telephone Exchange |
| 16 | Pasir Ris Telephone Exchange |
| 17 | Queenstown Telephone Exchange |
| 18 | Telok Blangah Telephone Exchange |
| 19 | Tampines Telephone Exchange |
| 20 | Tuas Telephone Exchange |
| 21 | City Telephone Exchange |
| 22 | Orchard Telephone Exchange |

ANNEX 8A.2

**SERVICE LEVEL GUARANTEES FOR BOTH CO-LOCATION AT CO-LOCATION SITES FOR A
POI OR POA**

1. REBATES FOR CO-LOCATION REQUEST TIMEFRAMES

| Missed notification timeframe as to whether Co-Location Request is accepted or rejected (clause 3.53.4) by: | Rebate |
|--|--|
| 1-30 Calendar Days | Number of days of delay x weekly recurring Charge |
| More than 30 Calendar Days | 30 x weekly recurring Charge |

| Missed notification timeframe as to response to Co-Location Request following detailed processing (clause 3.73.6) by: | Rebate |
|--|--|
| 1-30 Calendar Days | Number of days of delay x weekly recurring Charge |
| More than 30 Calendar Days | 30 x weekly recurring Charge |

2. REBATES FOR PROJECT STUDY TIMEFRAMES

| Missed timeframe for completion of Project Study (clause 4.1) by: | Rebate |
|--|--|
| 1-30 Calendar Days | Number of days of delay x weekly recurring Charge |
| More than 30 Calendar Days | 30 x weekly recurring Charge |

3. REBATES FOR SITE PREPARATION WORK

| Missed timeframe for completion of Site Preparation Work (clause 5.1) by: | Rebate |
|--|--|
| 1-30 Calendar Days | Number of days of delay x weekly recurring Charge |
| More than 30 Calendar Days | 30 x weekly recurring Charge |

4. REBATES FOR MODIFIED CO-LOCATION EQUIPMENT

| Missed timeframe for processing of request for Modified Co-Location Equipment (clause 11.2) by: | Rebate |
|---|--|
| 1-30 Calendar Days | Number of days of delay x weekly recurring Charge |
| More than 30 Calendar Days | 30 x weekly recurring Charge |

5. CLAIM PROCEDURES

- (a) A claim by the Requesting Licensee shall be made in writing within fourteen (14) Calendar Days of the completion of the relevant Calendar Month on which the Service Level Guarantees are measured. The amount in respect of any claim shall be paid to the Requesting Licensee in the form of a rebate. The Requesting Licensee acknowledges that a failure to make a claim within the specified timeframes under this clause means that the Requesting Licensee waives any entitlement to the Service Level Guarantee payment in respect of that claim.
- (b) If the Requesting Licensee is entitled to a rebate pursuant to the claim made hereunder, then the amount of the rebate will be credited into the Requesting Licensee's account after it has been processed by SingTel and will be reflected in SingTel's bill to the Requesting Licensee in accordance with SingTel's billing cycle.
- (c) The guarantee and rebates provided by SingTel under this [Annex 8A.2](#) are:
- (i) of an ex-gratia nature and personal to the Requesting Licensee and are non-transferable; and
 - (ii) subject to this Schedule.
- (d) Despite anything to the contrary in this section, if the Requesting Licensee qualifies for any claim under this [Annex 8A.2](#), SingTel shall honour its obligations in respect of that claim but in the event of a dispute as to whether the Requesting Licensee qualifies for a claim or as to the quantum of the claim payable to the Requesting Licensee, the dispute shall be resolved in accordance

with the Dispute Resolution Procedures in Schedule 11 of the RIO, or in the case of a Billing Dispute, in accordance with Schedule 10 of the RIO.

ANNEX 8A.3

REQUEST FOR ADDITIONAL TIE CABLES

The Requesting Licensee

Date of Application : _____ Application Reference Number : _____

Request for Additional Tie Cables is sought for the purpose of :

[POI/POA] _____

Address of Co-Location site : _____

Capacity of Tie Cables Requested : _____

On Behalf of the Requesting Licensee

Sign : _____ Name of Requesting Licensee: _____

Name : _____

Designation : _____

Department : _____

Contact Number : _____ Company Stamp : _____

Fax Number : _____

SingTel's Reply to the Requesting Licensee

Application returned - incomplete/illegible

Not Approved _____

Approved subject to details and conditions given in the attached Letter of Authorisation

Alternative Date and Time

SingTel Approval Code : _____

On Behalf of SingTel

Sign : _____ Contact Number : _____

Name : _____ Fax Number : _____

Date : _____

Processing Status

Received Date : _____ Queue Status : _____ Processed Date : _____

ANNEX 8A.4

**(APPLICABLE TO CO-LOCATION AT A CO-LOCATION SITE FOR A POA ONLY)
APPLICATION FORM FOR SINGTEL EXCHANGE RELATED INFORMATION**

To: Manager, Network Integration and Interconnect, SingTel
Fax: 6848 4113

We request that SingTel provide the following SingTel Exchange Related Information:

BOX 1 – SINGTEL EXCHANGE RELATED INFORMATION

1. The address of a SingTel's Exchange Building included in Box 2;
2. The diagram of the network boundary for that SingTel Exchange Building (i.e. the streets making up the boundary of the SingTel Exchange Building).

Please tick the box corresponding to the SingTel's Exchange Building for which SingTel Exchange Related Information is required.

| Box 2 – SingTel Exchange | |
|----------------------------------|--------------------------|
| Ang Mo Kio Telephone Exchange | <input type="checkbox"/> |
| Ayer Rajah Telephone Exchange | <input type="checkbox"/> |
| Bedok Telephone Exchange | <input type="checkbox"/> |
| Bukit Panjang Telephone Exchange | <input type="checkbox"/> |
| Changi Telephone Exchange | <input type="checkbox"/> |
| Central Telephone Exchange | <input type="checkbox"/> |
| East Telephone Exchange | <input type="checkbox"/> |
| Geylang Telephone Exchange | <input type="checkbox"/> |
| Hougang Telephone Exchange | <input type="checkbox"/> |
| Jurong East Telephone Exchange | <input type="checkbox"/> |
| Jurong Telephone Exchange | <input type="checkbox"/> |
| Jurong West Telephone Exchange | <input type="checkbox"/> |
| Katong Telephone Exchange | <input type="checkbox"/> |
| North Telephone Exchange | <input type="checkbox"/> |
| Paya Lebar Telephone Exchange | <input type="checkbox"/> |
| Pasir Ris Telephone Exchange | <input type="checkbox"/> |
| Queenstown Telephone Exchange | <input type="checkbox"/> |
| Telok Blangah Telephone Exchange | <input type="checkbox"/> |
| Tampines Telephone Exchange | <input type="checkbox"/> |
| Tuas Telephone Exchange | <input type="checkbox"/> |

| | |
|----------------------------|--------------------------|
| City Telephone Exchange | <input type="checkbox"/> |
| Orchard Telephone Exchange | <input type="checkbox"/> |

We agree that:

- (a) we are liable for all Charges that may arise in relation to a request for SingTel Exchange Related Information; and
- (b) SingTel Exchange Related Information constitutes Confidential Information and will be treated as such in accordance with clause 23 of the main body of the RIO Agreement.

Signature: _____

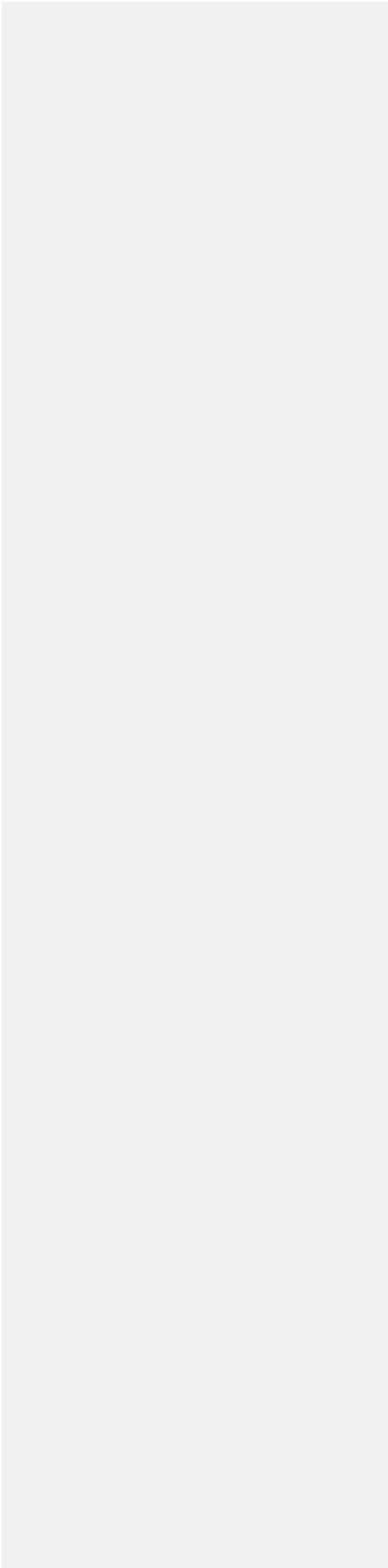
Date: _____

Name: _____

Designation: _____

Company: _____

Company Stamp: _____



ANNEX 8A.5

REQUEST FOR INSTALLATION OF CABLES BETWEEN CO-LOCATION EQUIPMENT OF REQUESTING LICENSEES

The Requesting Licensee

Date of Application : _____ Application Reference Number : _____
Name of other Co-located Requesting Licensee : _____
Address of Co-Location site : _____
Location of Termination Points of Fibre Cable or Patch Cord : _____
Number and Capacity of Fibre Cables or Patch Cords to be installed : _____

On Behalf of the Requesting Licensee

Sign : _____ Name of Requesting Licensee: _____
Name : _____
Designation : _____
Department : _____
Contact Number : _____ Company Stamp : _____
Fax Number : _____

SingTel's Reply to the Requesting Licensee

Application returned - incomplete/illegible
 Not Approved Reason for Rejection : _____

Approved subject to details and conditions given in the attached Letter of Authorisation
 Alternative Date and Time SingTel Approval Code : _____

On Behalf of SingTel

Sign : _____ Contact Number : _____
Name : _____ Fax Number : _____
Date : _____

Processing Status

Received Date : _____ Queue Status : _____ Processed Date : _____