

SCHEDULE 8A

CO-LOCATION FOR POINT OF INTERCONNECTION (POI)

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ANNEX 8A.1

SCHEDULE 8A

CO-LOCATION FOR POINT OF INTERCONNECTION (POI)

1. GENERAL

- 1.1 This Schedule sets out the terms and conditions under which SingTel will provide the Requesting Licensee with Co-Location Space at Co-Location Sites where a Point of Interconnection (**POI**) with SingTel's Network is or is to be located for the purpose of establishing Physical Interconnection between the respective Networks of each Party.

SingTel Comment: Clause 1.1

Clarifying amendment only.

- 1.2 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 their POI Co-Location Equipment. Where certain work is to be carried out by SingTel under this Schedule, the Requesting Licensee must pay all the costs incurred by SingTel in provisioning Co-Location Space at a Co-Location Site for POI.
- 1.3 The list of Co-Location Sites as at the date of this RIO Agreement for POIs is listed in Annex 8A.1
- 1.4 SingTel may vary the Co-Location Sites listed in Annex 8A.1 from time to time in accordance with the provisions of the SingTel RIO.

SingTel Comment: Clause 1.4

SingTel has amended clause 1.4 to ensure consistency with the IDA's statement in its Letter to SingTel dated 21 February 2004 (page 3) that it will treat de-commissioning as an operational issue to be dealt with in accordance with the provisions of the RIO.

- 1.5 SingTel shall not be responsible for any damage to the Requesting Licensee's POI Co-Location Equipment 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.

- 1.6** This Schedule 8A only applies to Requesting Licensees who are FBOs.
- 1.7** (a) The timeframes in this Schedule relating to pre-provisioning work to be undertaken by SingTel under clauses 3.3, 4.3 and 4.4 (such as the completion of project studies and the assessment of applications) are subject to delays caused by events outside SingTel's reasonable control, in which case SingTel may extend these timeframes for a period equal to the period of such delays.
- (b) For the avoidance of doubt, a failure to meet these timeframes caused by events outside SingTel's reasonable control does not constitute a breach of this Schedule or this RIO Agreement.
- 1.8** (a) If SingTel fails to meet any timeframe in this Schedule relating to provisioning work to be undertaken by SingTel under clause 5.1, and the failure to meet the timeframe is solely caused by SingTel, SingTel will provide a remedy to the Requesting Licensee.
- (b) Such remedy will be in the form of a credit to the Requesting Licensee of the recurring Charges payable for the delayed services over a period equal to the period of the delay.
- (c) The Requesting Licensee acknowledges that this remedy 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 provisioning timeframes 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;

SingTel Comments: Clause 2.1(a) and (b)

SingTel has reduced the reservation period for Co-Location Space at a Co-Location Site from 2 years to 1 year in accordance with the requirements set out in the IDA's letter to SingTel dated 21 February 2005 (page 4).

- (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;
- (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.

SingTel Comment: Clause 2.1(e)

SingTel should have the right to refuse an application for Co-Location where the relevant SingTel Exchange is "earmarked" for decommissioning.

SingTel cannot guarantee or maintain the quality of Services following the commencement of and during decommissioning at an Exchange.

Furthermore, the provision of a licence to a Requesting Licensee to access the Co-Location Site during the process of decommissioning would only delay and hinder the decommissioning process.

SingTel notes that this clause has already been approved by the IDA in relation to other Schedules, including Schedule 8B.

3. ORDERING AND PROVISIONING PROCEDURE

3.1 The Requesting Licensee shall submit its request for Co-Location Space at a Co-Location Site for POI listed in 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 at which Co-Location Space is sought;
- (b) confirmation that Co-Location Space is sought at that Co-Location Site for the purpose of interconnection with a POI;

- (c) the type of POI Co-Location Equipment proposed to be installed at that Co-Location Site;
- (d) the space (subject to clause 3.2) and power requirements;
- (e) the floor loading of the POI Co-Location Equipment;
- (f) the capacity of the Transmission Tie-Cable;
- (g) the type of optical fibre cable to be used, and the diameter of the fibre cable; and
- (h) the Requesting Licensee's contact details.

3.2 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.

3.3 If the Co-Location Request is rejected, SingTel will provide the reasons for such rejection to the Requesting Licensee within three (3) Business Days of the date of the Co-Location Request. 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.

SingTel Comments: Clause 3.3

SingTel has amended clause 3.3 to further streamline the ordering and provisioning process in relation to Co-Location Requests, as required by the IDA (IDA Letter to SingTel, 21 February 2005, page 1).

SingTel has never refused to fulfil a Co-Location Request. SingTel has therefore structured clause 3 to provide for the automatic processing of requests for co-location. A Requesting Licensee will only therefore be notified in the unlikely event that a request has been unsuccessful.

3.4 SingTel may reject a Co-Location Request if:

- (a) the Requesting Licensee is not an FBO; or
- (b) the Co-Location Request is not in the prescribed form; or
- (c) the Co-Location Request does not contain the required information; or

- (d) the space requested is not within the limits prescribed by clause 3.2; or
 - (e) there is no available space at the Co-Location Site as determined in accordance with clause 2; or
 - (f) acceptance of the Co-Location Request will give rise to significant health, safety, technical or engineering issues.
- 3.5** The Requesting Licensee acknowledges that the Co-Location Space allocated and the actual placement of the POI Co-Location Equipment shall be determined by SingTel. SingTel is not obligated to place the same Requesting Licensee's POI 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.
- 3.6** SingTel shall process all Co-Location Space Requests on a 'first come, first served' basis up to the maximum amount specified in clause 3.7.
- 3.7** 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 Comment: New clauses 3.6 and 3.7

SingTel considers that it is reasonable to impose a per week limit on the number of Requests for Co-Location. SingTel's ability to handle Requests for Co-Location are limited, given the complicated and technical nature of such Requests.

In any case, SingTel considers that the maximum per week limit set out in clause 3.7 is proportionate to the level of demand for co-location by Requesting Licensees.

4. PROJECT STUDY

- 4.1** Except where SingTel has rejected a Co-Location Request, SingTel will commence a Project Study within fifteen (15) Business Days of the expiry of the timeframe for rejection of the Co-Location Request under 3.3. The Requesting Licensee must pay the Project Study fee specified in Schedule 9.

SingTel Comments: Clause 4.1

SingTel has amended clause 4.1 to further streamline the ordering and provisioning process in relation to Co-Location Requests, as required by the IDA (IDA Letter to SingTel, 21 February 2005, page 1).

- 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 and Transmission Tie-Cable routing and any Site Preparation Works required for Co-Location; and
 - (b) a joint site survey with the Requesting Licensee.
- 4.3** SingTel shall schedule the preliminary site survey and a joint site survey. SingTel shall complete the Project Study within fifteen (15) Business Days of its commencement.
- 4.4** Following completion of the Project Study, SingTel shall provide the Requesting Licensee with the following information:
- (a) the estimated Charge for the Site Preparation Work, along with 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 length of the Transmission Tie-Cable; and
 - (e) the number of Business Days expected to complete the Site Preparation Work.
- 4.5** 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 4.4, 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. SingTel may provide the Requesting Licensee with a revised price estimate. SingTel may suspend 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 4.4. If SingTel is unable to complete the Site Preparation Work within the advised period, SingTel shall notify the Requesting Licensee of a revised date for completion (which, in all the circumstances, shall be within a reasonable period of time).

SingTel Comment: Former clause 5.2

Clarifying amendment only. SingTel has deleted former clause 5.2 as it duplicates clause 5.1.

5.2 As part of the Site Preparation Work, SingTel shall construct two (2) 110mm Connection Ducts of one (1) metre from the designated Lead-in Manhole in the direction indicated in clause 4.4(b) for the Requesting Licensee to connect its ducts. SingTel shall construct the duct seal for the Connection Ducts constructed in SingTel's Lead-in Manhole.

5.3 Upon completion of the Site Preparation Work, SingTel will notify the Requesting Licensee and 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 POI 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 POI Co-Location Equipment:

(a) the Co-Location Equipment Installation and Maintenance Procedures at Attachment A and as amended by SingTel from time to time;

- (b) the Standard Operating Procedures at Attachment B and 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** The Requesting Licensee shall pay SingTel the Charges in accordance with Schedule 9 for the installation and termination of Transmission Tie-Cables under the POI Co-Location Equipment Installation and Maintenance Procedures.

7. TERM OF LICENCE

- 7.1** The term of a Co-Location Space Licence granted under this Schedule shall commence on the date the Requesting Licensee confirms its acceptance of the Charges for Site Preparation Work at the Co-Location Site (**Commencement Date**) and continues for a period of three (3) years from the Commencement Date until:
- (a) the Co-Location Space licence is terminated in accordance with this Schedule;
 - (b) the SingTel RIO is revoked by the Authority under clause 13.8 of the RIO Agreement; or
 - (c) until 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 13.9 of the RIO Agreement.

SingTel Comment: Clause 7

Consequential amendment. Clauses in relation to termination of this Schedule have been moved to new clause 9 (Termination of Licence).

8. SUSPENSION OF LICENCE

- 8.1** SingTel may suspend the Requesting Licensee's Co-Location Space licence at any time until further notice to the Requesting Licensee if the POI 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 licence of Co-Location Space at any time with immediate effect by giving notice to the Requesting Licensee if the Requesting Licensee fails to complete the installation of its POI 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 Day period.

9.2 The Requesting Licensee may terminate a licence of Co-Location Space under this Schedule by giving SingTel no less than six (6) months written notice. Termination of the licence will take effect from the date specified in the notice.

9.3 Subject to clause 13.2 of the RIO Agreement where SingTel is the terminating party, either Party (**Terminating Party**) may immediately terminate a licence of Co-Location Space at a Co-Location Site if the other Party is in breach of this Schedule and such breach remains unremedied for a period of five (5) Business Days after receiving written notice from the Terminating Party to do so.

9.4 Subject to clause 13.2 of the RIO Agreement, SingTel may immediately terminate a licence of Co-Location Space 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 licence of Co-Location Space 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 POI Co-Location Equipment is used for a purpose other than for the Interconnection of the Requesting Licensee's Network to the SingTel Network;
- (e) the Requesting Licensee removes or abandons its POI Co-Location Equipment;
- (f) the Requesting Licensee locates equipment other than POI Co-Location Equipment in the Co-Location Space;
- (g) the Co-Location Space has become unsafe or unsuitable for its purpose; or
- (h) SingTel's right to own, maintain or operate the Co-Location Site is revoked or terminates or expires.

9.5 SingTel may give the Requesting Licensee no less than six (6) months' notice 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. The Requesting Licensee shall bear its own cost associated with the closure of a Co-Location Site. If the Requesting Licensee requests within thirty (30) Business Days after receiving a notice under this clause 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 9.5.

9.6 Upon expiry or termination of the licence of Co-Location Space:

- (a) the Requesting Licensee must discontinue the use of its POI Co-Location Equipment and remove its POI Co-Location Equipment from the Co-Location Site within thirty (30) Business Days after the expiry of the Requesting Licensee's licence or from the date of termination of Co-Location Space, whichever is the earlier; and
- (b) SingTel shall reinstate the Co-Location Space and recover/reinstate all cables/supports/opening and recover the reasonable cost of such reinstatement from the Requesting Licensee.

- 9.7** If the Requesting Licensee fails to discontinue the use of its POI Co-Location Equipment and remove its POI Co-Location Equipment under clause 9.6, SingTel shall remove the Requesting Licensee's POI 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 POI Co-Location Equipment. In such event, the Requesting Licensee shall have no claim whatsoever, against SingTel.
- 9.8** Upon termination of the licence of Co-Location Space, any physical access granted to the Co-Location Site shall also be terminated.
- 9.9** Upon termination by the Requesting Licensee under clause 9.2 or by SingTel under clauses 9.1, 9.3 or 9.4 (except clause 9.4(g) and 9.4(h)) of a licence of Co-Location Space prior to the expiry of the licence term referred to in clause 7.1, the following Charges shall be recovered from the Requesting Licensee but only where SingTel has, at its discretion, constructed additional Co-Location Space and has not recovered the full cost of Site Preparation Work from the Requesting Licensee from upfront Site Preparation Work Charges:
- (a) licence Charges for the remainder of the original licence term;
 - (b) outstanding pro-rata Site Preparation Work Charges.

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. ADDITIONAL CO-LOCATION SPACE AND POI CO-LOCATION EQUIPMENT

- 11.1** If the Requesting Licensee wishes to replace, modify or rearrange existing POI Co-Location Equipment in the Co-Location Space or to install additional POI Co-Location Equipment in the Co-Location Space, the Requesting Licensee must submit a request in respect of the replacement, modification, rearrangement or additional POI Co-Location Equipment. The Requesting Licensee shall be liable for all costs incurred by SingTel processing a request under this clause 11.1.

SingTel Comment: Clause 11.1

SingTel should be permitted to recover any costs it incurs in fulfilling a request under clause 11.1.

- 11.2** Requests for additional Co-Location Space at Co-Location Sites shall be treated as a separate Co-Location Request and the process of ordering and provisioning in clause 3 shall apply.

ANNEX 8A.1

LIST OF POSSIBLE CO-LOCATION SITES FOR 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