



**EXPLANATORY MEMORANDUM ISSUED BY
THE INFO-COMMUNICATIONS DEVELOPMENT AUTHORITY OF SINGAPORE**

**PUBLIC CONSULTATION ON THE
SECOND REVIEW OF SINGAPORE TELECOMMUNICATIONS LIMITED'S
REFERENCE INTERCONNECTION OFFER**

27 October 2011

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EXPLANATORY MEMORANDUM

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1. This Explanatory Memorandum explains the Direction dated 27 October 2011, issued by the Info-communications Development Authority of Singapore (“**IDA**”) to Singapore Telecommunications Limited (“**SingTel**”), directing it to incorporate modifications to SingTel’s Reference Interconnection Offer (“**RIO**”).
2. Unless the context requires otherwise, all capitalised terms used in this Explanatory Memorandum shall have the same meanings as in the RIO (including Schedule 12 – Dictionary).

PART I: INTRODUCTION

3. On 21 January 2011, the Code of Practice for Competition in the Provision of Telecommunication Services 2010 (“**Code**”) came into effect. On the same day, IDA published a public consultation paper (“**RIO Public Consultation Paper**”) on key issues that IDA believes would have significant implications on the relevance and scope of SingTel’s RIO going forward. Following the issuance of IDA’s decision on 22 June 2011 (“**IDA’s Decision**”) on the key issues consulted in the RIO Public Consultation Paper, IDA had required SingTel to submit to IDA, for approval, the proposed modifications to its RIO to conform to the requirements of the Code and IDA’s Decision.
4. On 29 July 2011, SingTel submitted a proposed revised RIO (“**Proposed Revised RIO**”) to IDA. On 1 August 2011, IDA released a Public Consultation Paper, seeking the views and comments from the industry on the Proposed Revised RIO.
5. At the close of the public consultation on 14 September 2011, IDA received comments from four respondents, namely Asia Pacific Carriers’ Coalition, M1 Limited, OpenNet Pte Ltd and StarHub Ltd. IDA thanks all respondents for their comments.

PART II: SUMMARY OF COMMENTS RECEIVED AND IDA'S DECISIONS ON THE ISSUES TO BE ADDRESSED IN THE SECOND REVIEW OF THE REFERENCE INTERCONNECTION OFFER

SECTION 1 – Access to Local Exchange Buildings

6. In IDA's Decision, IDA had required SingTel to propose modifications to its RIO, to allow third party operators to access and co-locate in SingTel's local exchanges, so as to facilitate these third party operators in providing local connectivity services to other licensees who wish to obtain services under SingTel's RIO. In addition, SingTel was required to propose modifications to its RIO to enable licensees, whose mandated services can only be accessed at SingTel's local exchanges ("**Mandated Licensees**"), to offer access to these local exchanges to other operators who wish to deploy their own facilities for the purpose of obtaining the Mandated Licensees' services.
7. SingTel has, in the Proposed Revised RIO, offered access to the Co-Location Space at the SingTel Exchange Buildings via the Mandated Licensees, for the other operators to install a termination FDF at an available location near the Mandated Licensee's FDF within the SingTel Exchange Building ("**Termination FDF**"). As currently drafted, the Proposed Revised RIO specifies that this can be done in either one of the following two ways:
 - (a) By SingTel installing the other operator's fibre cables from the Lead-in Manhole of the SingTel Exchange Building to the Termination FDF at the Mandated Licensee's cost; or
 - (b) By SingTel installing the other operator's fibre cables from the Termination FDF to a location nominated by the other operator that is within the same SingTel Exchange Building to which the other operator has already acquired access.
8. IDA has carefully reviewed the modifications in SingTel's Proposed Revised RIO, and does not accept the proposed modifications. IDA would like to clarify that the requirement as stated in IDA's Decision was that SingTel should offer access to enable Mandated Licensees to offer to other licensees access, *inter alia*, to Lead-in Ducts and associated Manholes, and necessary cabling and trunking, for the purpose of obtaining the Mandated Licensees' services. In other words, SingTel need only offer access to the connectivity points/locations within the SingTel Exchange Building specified by the Mandated Licensees. In addition, for the avoidance of doubt, services for connections to the Mandated Licensees' connectivity points/locations should be addressed in the Mandated Licensees' interconnection offer and not in the RIO.
9. Accordingly, SingTel is required to remove its proposed modifications specified in paragraphs 7(a) and 7(b) above, from the Proposed Revised RIO.

SECTION 2 - Licensing for use of Building Lead-in Ducts and Lead-in Manholes

10. Under clause 1.1(b) of Schedule 5A of the Proposed Revised RIO, SingTel has proposed to differentiate between:
 - (a) SingTel providing the Requesting Licensees with a licence for the use of Building Lead-in Ducts and Lead-in Manholes; and
 - (b) SingTel providing a licence for the use of Building Lead-in Ducts without Lead-in Manholes in circumstances where SingTel does not own the associated Lead-in Manholes and the Requesting Licensee has acquired access to the Lead-in Manholes from a third party.
11. IDA received comments from two industry respondents on the above proposed amendments.
12. Noting the uncertainty generated from the two options (a) and (b) above, one industry respondent commented that there needed to be greater clarity on what the proposed change to clause 1.1(b) meant, in order for FBOs to understand the implications and ways to acquire access to the Lead-in Manholes from a third party. It was highlighted that if a licensee could only access the Lead-in Duct, but not the Lead-in Manhole, this was tantamount to refusal to provide entry, and the licensee would be unable to serve customers in the building in question.
13. Also, the industry respondent commented that there could be circumstances where a Requesting Licensee is prevented from deploying its own pipeline and manholes to the Building Lead-in Ducts and Lead-in Manholes. For example, a building owner might refuse to allow a Requesting Licensee from deploying its own pipeline and manholes within the building owner's compound, on the basis that there were already existing pipelines and/or manholes connected to the building Lead-in Duct and Lead-in Manhole. Therefore, the industry respondent queried whether the Requesting Licensee was expected to acquire access to the existing pipeline and manholes owned by SingTel or the third party at regulated rates. It also sought clarification on whether a Requesting Licensee would be able to acquire access to the Lead-in Manholes owned by a third party at regulated rates.
14. IDA has considered the comments from the industry. At the outset, IDA would like to clarify that the circumstance in respect of option (b) in clause 1.1 of Schedule 5A arises where SingTel does not own the Lead-in Manholes, as a result of such manholes having been transferred to CityNet Infrastructure Management Pte Ltd ("**CityNet**"). Under this scenario, access to the Lead-in Manholes would be offered under CityNet's Reference Access Offer ("**RAO**"), and any applicable rates for such access would be as set out in CityNet's RAO. A copy of City Net's RAO can be found at <http://www.ida.gov.sg/Policies%20and%20Regulation/20110922141002.aspx>.

15. IDA also clarifies that only SingTel's infrastructure which is deemed to be an Interconnection Related Service ("**IRS**") would fall within the scope of RIO. In this regard, non-Lead-in Ducts and non-Lead-in Manholes, whether these are owned or controlled by SingTel or other Licensees, would fall *outside* the scope of the RIO. Nevertheless, if these facilities satisfy the qualification criteria for critical support infrastructure ("**CSI**") under section 7 of the Code, Requesting Licensees may apply for them to be designated as CSI for which sharing would be required under the Code.
16. In response to the industry respondent's query on what the rates for access of Lead-in Manholes owned by a third party would be, IDA clarifies that besides CityNet's Lead-in Manholes, the rates for sharing of such infrastructure may be negotiated between the parties. If the parties are not able to reach a mutual agreement on the applicable rates, then parties can always refer the matter to IDA following the relevant dispute resolution procedures under the Code.
17. A second industry respondent requested clarification on whether the access under Schedule 5A of the RIO was restricted to a specific type of building or premise. It was stressed that the proposed Schedule 5A of the RIO did not specifically cater for access to buildings/premises within a compound consisting of multiple sections of ducts and manholes leading to the buildings/premises, including Singapore Changi Airport, restricted areas or installations, e.g., MINDEF camps, and university campuses where multiple buildings are located within a large compound. It was submitted that in order to access such buildings/premises, licensees would need access to all the associated facilities (e.g., ducts and manholes). The industry respondent said that such access was important to ensure fair and efficient competition amongst the licensees, particularly since there might be difficulties in obtaining grants for further trenching works in such compounds, e.g., aircraft runways, MINDEF compounds due to national and security reasons.
18. IDA has considered this comment and determines that there is no necessity to expand the existing scope of Building Lead-in Ducts and Lead-in Manholes. This is because building owners would not in all instances disallow Requesting Licensee to build ducts and manholes within their compounds. In instances where the building owner does in fact reject such a request by the Requesting Licensee to build the ducts and manholes as set out above, then the Requesting Licensee may request the designating of the existing non-Lead-in Ducts and manholes within the compound as CSI pursuant to section 7 of the Code.
19. Another comment noted that since a Requesting Licensee using RIO to lay cables into a building or premise via the Lead-in Ducts would be able to terminate the cables within the building MDF and to traverse the cables via the Building MDF to access the other parts of the building, subject to the applicable approvals, it was proposed that similar changes should also be incorporated in Schedule 3D, in respect of licensing of the Building MDF Distribution Frame. In relation to this comment, IDA notes that currently, Requesting Licensees are already able to install and terminate at Building

MDFs under Schedule 3D and as such, IDA considers that no change is needed in respect of Schedule 3D of the RIO.

SECTION 3 – Fault Response Times

20. One industry respondent provided feedback that the RIO should be amended to improve the management and escalation of technical issues, as follows:
 - (a) Service affecting faults should not be treated differently depending on the time at which they occur (i.e. during or after Office Hours);
 - (b) The escalation of faults should not require the agreement of the parties that the matter ought to be escalated.
21. With regard to paragraph 20(a) above, IDA views that it may be reasonable to have a differentiation in the response time for service affecting faults occurring during and after Office Hours, given that the level of resources available to man the necessary facilities is likely to be different. However, if the Requesting Licensee requires a more expeditious response time for service affecting faults after Office Hours, it may negotiate an Individualised Interconnection Agreement pursuant to the Code.
22. In relation to paragraph 20(b), IDA takes the view that fault rectification processes under the RIO must be both timely and efficient to minimise disruptions to End User services. In accordance with this principle, IDA agrees with industry feedback that either of the parties should be allowed to escalate the fault where the progress of the remedy is not satisfactory to that party. Such fault escalation should not require the mutual agreement of the parties before it can be done. IDA recognises that there could be circumstances in which a party may not wish to escalate the matter as it would not be in its commercial interest to do so. This would inevitably lead to unnecessary delays in fault rectification processes, causing significant inconvenience to the other party's operations and ultimately, having an adverse impact on the provisioning and delivery of End User services.

SECTION 4 – Service Level Guarantees

23. An industry respondent has expressed the view that service level guarantees under the RIO should be benchmarked and improved upon. In particular, one respondent expressed that:
 - (a) the RIO should include service level guarantees for all services and elements of service delivery, availability and repair, including electricity supply and air-conditioning in particular;
 - (b) the RIO should require SingTel to monitor quality of service, report on it routinely, and automatically reward rebates to Requesting Licensees

as part of the service (i.e. without the Requesting Licensees having to claim for the service level guarantees); and

- (c) service level guarantees should not be “of an ex gratia nature” but instead, should be an enforceable and transferable debt.
24. After due and careful consideration, IDA disagrees with these comments.
25. First of all, in relation to paragraph 23 (a) above, IDA clarifies that service level guarantees are supposed to be for basic services under the RIO. If a Requesting Licensee were to require additional service level guarantees, then it may negotiate an Individualised Interconnection Agreement pursuant to the Code. Otherwise, IDA considers that the imposition of service level guarantees on all elements of services under the RIO would likely lead to an unnecessary increase in the cost of providing all services under RIO, and this may increase the cost for other Requesting Licensees who may not require extensive service level guarantees. IDA is of the view that this would be an inefficient and unfavourable outcome, and does not accord with the purpose and objective of the RIO.
26. On paragraph 23(b), IDA is of the view that Requesting Licensees will be in a better position to monitor breaches of service level guarantees, given that any breaches would directly impact their service provisioning. To require the set-up of a monitoring system that routinely reports and automatically rewards rebates, would likely lead to incurrence of additional costs, which ultimately will be recovered from the Requesting Licensees via higher pricing.
27. In relation to paragraph 23(c), service level guarantees being “of an ex gratia nature”, IDA understands “ex-gratia” rebates as being payments paid out by a defaulting party without any admission of liability. However, this does not mean that the obligation to make the ex-gratia payment is not legally binding; SingTel is still bound under the RIO to pay the requisite rebates to the affected Requesting Licensees as long as it fails to meet the requisite service level guarantees. Based on this understanding, IDA deems the current use of “ex-gratia” by SingTel to be appropriate.

SECTION 5 – Electronic Ordering System

28. An industry respondent proposed that IDA should seek SingTel’s view on the feasibility of extending SingTel’s electronic ordering system to the Requesting Licensees.
29. In assessing whether use of SingTel’s electronic ordering system should be mandated under the RIO, IDA is conscious of the countervailing practical cost considerations; namely, whether or not the costs of implementing the system for the RIO would be justified against the benefits of having such a system. In this regard, IDA views that the volume of transactions under the RIO may not be sufficiently large to justify the costs which would be involved or incurred in implementing an electronic ordering system for RIO Services.

SECTION 6 – Unavailability of Requested Building Lead-in Ducts or Manholes

30. A comment was made by an industry respondent that in the event SingTel informs the Requesting Licensee that use of a requested Building Lead-in Duct or access to a Lead-in Manhole is not available, SingTel should be required to indicate on a map the specific pipeline segment(s) and manhole(s) that are not available.
31. IDA has considered this comment, and takes the view that the additional requirement proposed by the industry is not necessary. IDA notes that SingTel is already under an obligation, pursuant to clause 4.5 in Schedule 5C, to:
- (a) provide the reasons explaining the basis of its decision in relation to the said unavailability; and
 - (b) where available, offer alternative pipeline segment(s), Lead-in Duct(s) and/ or Manhole(s) to facilitate the requested access.

IDA considers that the existing process as set out above is sufficient, and accordingly, SingTel is not required to propose further modifications to the provision.

SECTION 7 – Security and Confidentiality Requirements by Building Owners

32. Under the Proposed Revised RIO, SingTel has added “building owners and building developers’ confidentiality and security requirements and restrictions” to the factors which SingTel can take into account when assessing the availability of Building Lead-in Ducts and Lead-in Manholes. Previously, the RIO only provided for security and confidentiality requirements or restrictions imposed by Governmental Agencies on SingTel. The industry has expressed its objection to SingTel’s proposed additions, on the grounds that this would unduly widen the scope of what SingTel can take into account when assessing the availability of Building Lead-in Ducts and Lead-in Manholes. It was commented that if, for instance, SingTel (or any its affiliates) were the building owner or developer in question, then there would be nothing to stop them from imposing onerous terms on the Requesting Licensees.
33. IDA agrees with the industry’s comments. IDA is cognisant of the fact that the RIO has been in place since 2001, without it having been previously subject to any such security and confidentiality requirements imposed by building owners or developers. IDA considers that the introduction of these new requirements or restrictions into the RIO would create uncertainty and unduly widen the scope of what SingTel can take into account when assessing the availability of Building Lead-in Ducts and Lead-in Manholes. Accordingly, unless SingTel can provide satisfactory and valid justification to IDA why the additional security or confidentiality requirements imposed by building owners

and developers should be included in the RIO, IDA requires SingTel to remove such additional requirements and restrictions from the RIO.

SECTION 8 – Charging Principle for Provision of Interconnection Links

34. SingTel has proposed in the Proposed Revised RIO that the one-time Charges and recurring Charges, payable by the Acquirer where Interconnection Links need to be installed between SingTel and the Third Party Network, will be determined on a “cost reimbursement” basis based on retail charges.
35. However, IDA considers that since the service to be provided by the Supplier under Schedule 2C is an IRS under sub-section 6.3.2 of the Code, the recovery of the underlying costs to provide the service (including one-time and recurring costs for the Interconnection Links) must be set in a manner which accords with the pricing principles in Appendix 1 of the Code, instead of being based on retail charges.

SECTION 9 – Heat Load Limit on Co-location Equipment

36. SingTel has proposed in the Proposed Revised RIO that Requesting Licensees are required to ensure that their Co-location Equipment at the Co-location Space do not exceed a heat load limit of 900 watts per square metre. One industry respondent commented that new Co-location Equipment runs on higher power consumption and would therefore exceed the heat load limit proposed.
37. IDA has reviewed SingTel’s proposal and the industry’s comments. IDA notes that the RIO has been in place since 2001 without it having been previously subject to any heat load limit on the Co-Location Equipment, and that industry players have been taking Co-location Space based on the approved RIO. There has also been no issue of equipment in the Co-location Space exceeding certain heat load limit and causing operational concerns to Requesting Licensees. In view of the above, unless SingTel can provide strong justification otherwise, IDA considers that having a heat load limit would not be reasonable and requires SingTel to remove such requirement from the RIO.

PART III: CONCLUSION

38. In conclusion, IDA assures the industry that it will be subjecting the RIO prices, timelines, processes, terms and conditions to review from time to time, and will ensure that the RIO continues to be relevant to the industry and the prevailing market conditions in Singapore.