



**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**

22 June 2011

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EXPLANATORY MEMORANDUM

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This Explanatory Memorandum sets out IDA's assessment with respect to the responses received to the issues raised during the public consultation on the second review of Singapore Telecommunications Limited's ("**SingTel**") Reference Interconnection Offer ("**RIO**"), and the final decision by IDA on each of the said issues.

PART I: INTRODUCTION

- 1 On 21 January 2011, the Code of Practice for Competition in the Provision of Telecommunication Services 2010 ("**Code 2010**") came into effect. On the same day, IDA published a public consultation paper ("**RIO Consultation Paper**") on key issues that IDA believes would have significant implications on the relevance and scope of SingTel's RIO going forward. To be clear, IDA, will at a subsequent stage, commence a separate review of the proposed terms and conditions of SingTel's revised RIO¹.
- 2 At the close of the public consultation on 14 March 2011, IDA received comments from five respondents, namely Mr Andrew Ngiam, Asia Pacific Carriers' Coalition, M1 Limited, SingTel and StarHub Ltd. IDA thanks all respondents for their comments.
- 3 In addition, IDA notes that a number of submissions contained comments on issues which were not central to the subject of the public consultation. First, some comments related to modifications of the specific terms and conditions of SingTel's RIO. With regard to these comments, IDA is of the view that it would be more appropriate to address them in the course of a subsequent review of the actual terms and conditions of SingTel's proposed revised RIO. As explained in the RIO Consultation Paper (and in paragraph 1 above), IDA will be conducting a separate public consultation pertaining specifically to the revised RIO proposed by SingTel. Second, with respect to comments received which relate to modifications of another Dominant Licensee's interconnection offer, IDA considers that such comments should be raised at a separate proceeding on that other Dominant Licensee's interconnection offer.

¹In the review of the terms and conditions of SingTel's RIO, IDA would require SingTel to submit to IDA a proposed revised RIO which conforms to the requirements of Code 2010 (please see Sub-Section 12.5.5(b) of Code 2010).

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 Co-Location Space at Submarine Cable Landing Stations/Frontier Stations, and Local Exchange Buildings

Access to Co-Location Space at Submarine Cable Landing Stations (“SCLS”)/Frontier Stations

- 4 In the RIO Consultation Paper, IDA sought views on whether third party operators, i.e. facilities-based licensees other than Indefeasible Rights of Use (“IRU”) holders and holders of Long Term Leased Capacity, should be allowed to access and co-locate at SingTel’s SCLS/Frontier Stations for the sole purpose of building backhaul connectivity and providing backhaul services to allow other operators to access submarine cable capacity. IDA also sought comments on whether there should be some form of access priority for facilities-based licensees, and whether there would be administrative difficulties in implementing such priorities.
- 5 IDA received mixed responses to this issue. On one hand, three respondents supported allowing third party operators to access and co-locate at SingTel’s SCLS for the sole purpose of providing backhaul services. However, on the issue of access priority, one respondent submitted that access priority should be given to those facilities-based licensees who own cable capacity and wish to establish their own backhaul facilities.
- 6 On the other hand, two respondents submitted that access to SingTel’s SCLS/Frontier Stations under the RIO should remain as per the status quo. One respondent raised the point that co-location space at SCLS remains limited, while the other submitted that no regulatory intervention by IDA is required since the backhaul market for access to SingTel’s SCLS is already highly competitive and there is no evidence of any market failure.
- 7 Having reviewed the responses carefully, IDA makes the following assessment. At the outset, IDA clarifies that the proposal to lift access restrictions to SingTel’s SCLS was not premised on market failure in backhaul service. Rather, as explained in the RIO Consultation Paper, the existing access conditions had originally been imposed based on previous considerations that co-location space in the SCLS might be limited. In this regard, not only has IDA to date not received any notification of rejection by SingTel for access and co-location at SingTel’s SCLS due to space constraints, IDA believes that allowing third party operators to access SingTel’s SCLS may in fact facilitate a more competitive backhaul market and efficient use of the resources associated with network deployment to the SCLS.
- 8 Since space constraints in SingTel’s SCLS have not been shown to be an issue, there is no compelling reason to continue with the existing artificial

restriction that access to SingTel's SCLS should only be available to operators with cable capacity.

- 9 Second, with regard to comments that priority of access to SingTel's SCLS should be retained for operators with cable capacity, IDA agrees that such differentiation would be justifiable where there are space constraints in SingTel's SCLS or there are risks of inefficient use of co-location space by third party operators. However, having considered that: (i) appropriate measures are already in place within the RIO which discourage inefficient use of co-location space; and (ii) space constraints are no longer a key concern, it becomes artificial and unnecessary to differentiate between operators *with* cable capacity and operators *without* cable capacity.
- 10 For the reasons above, IDA will require SingTel to review and propose modifications to its RIO for co-location space and physical access at SCLS/Frontier Stations, to allow facilities-based licensees other than IRU holders and holders of Long Term Leased Capacity to access and co-locate at SCLS/Frontier Stations for the purpose of providing backhaul services to facilities-based licensees who are IRU holders or holders of Long Term Leased Capacity in SingTel's SCLS.

Access to Local Exchange Buildings

- 11 IDA had sought views on whether third party operators should be allowed to build local connectivity to SingTel's local exchanges for:
 - i) the purpose of providing connectivity services to other licensees for the purpose of interconnection and accessing unbundled network elements and services under the RIO; and
 - ii) the purpose of obtaining IDA mandated services offered by other licensees which will require specific access to SingTel's local exchanges.
- 12 On the first issue of allowing third party operators to access SingTel's local exchanges for the purpose of providing connectivity services to other licensees obtaining RIO services, the comments received from respondents were largely similar to those received relating to access to SingTel's SCLS/Frontier Stations, i.e. concerns over IDA's intervention where there is no apparent market failure to warrant such action, and suggestions that access priority be retained for operators who wish to establish their own local connectivity.
- 13 On the second issue of allowing third party operators to access SingTel's local exchanges, for the purpose of obtaining mandated services offered by other licensees who will require specific access to SingTel's local exchanges, only one respondent provided comments. While that respondent supported the measure, it nevertheless submitted that the measure will be effective only if the other licensees offering mandated services at SingTel's local exchanges

- are subject to an obligation to provide physical interconnection at SingTel's local exchanges.
- 14 Having reviewed the comments received, IDA sets out its assessment as follows. On the first issue, IDA reiterates that its proposal to lift access restrictions was not based upon the need to address market failure for access to SingTel's local exchanges. Rather, for the reasons explained above in paragraphs 7 and 8, there are no objective reasons for denying access to third party operators who wish to build local connectivity facilities to SingTel's local exchanges if co-location space is available. Similarly, it is not necessary to accord priority access to licensees who wish to establish their own local connectivity where there are no concerns of space constraints.
 - 15 However, IDA would like to clarify a respondent's mistaken understanding of the principle of facilities-based competition in Code 2010. The respondent had submitted that the principle of facilities-based competition requires licensees "to deploy their own infrastructure to SingTel's exchanges for the purpose of accessing SingTel's IRS and MWS service." The respondent had also cited IDA's decision on the designation of SingTel's Local Leased Circuits as MWS in 2003 ("**LLC Decision**"), wherein IDA had "concluded that new entrants should be required to build their own portions of LLC infrastructure, including trunk segments...". While indeed the principle of facilities-based competition encourages licensees to build their own infrastructure and facilities where it is feasible for them to do so, this general principle must be balanced against the policy to promote services-based competition where facilities-based competition is infeasible or difficult. In other words, Dominant Licensees should not be required to offer mandated services where it is technically and economically feasible for such services to be provided by other licensees themselves.
 - 16 Applying these general principles to the issue at hand, consistent with IDA's facilities-based competition policy, IDA has not required SingTel to offer trunk circuit connectivity services to its local exchanges because IDA recognises that it is feasible for competing operators to build their own trunk circuits to SingTel's exchanges. However, this does not mean that operators should be prevented from building trunk circuits to SingTel's exchange to provide competing backhaul services to other operators.
 - 17 On the second issue of allowing access by third party operators to SingTel's local exchanges in order to obtain other licensees' services mandated by IDA, which require specific access to SingTel's local exchanges, IDA notes the respondent's comments that a corresponding obligation would need to be imposed on those other licensees (offering mandated services) to offer physical interconnection. As this consultation relates solely to SingTel's RIO, IDA views that it would not be appropriate to address the corresponding obligation at this juncture. Nevertheless, IDA views that amendments should still be made to SingTel's RIO, to facilitate access by operators intending to obtain mandated services provided by other licensees, where such access to SingTel's local exchanges is specifically required.

- 18 However, IDA is mindful of the administrative complications should operators have to enter into SingTel's RIO for access to SingTel's local exchanges, and a further agreement with the other licensees for access to their mandated services. In this regard, IDA views that it would be administratively more convenient for SingTel to offer access only to licensees whose mandated services are hosted in SingTel's local exchanges; in turn, these licensees would be required to offer a "one-stop" service for third party operators who wish to deploy their own infrastructure to SingTel's local exchanges. For the avoidance of doubt, IDA clarifies that access in this regard should include: access to lead-in ducts and associated manholes, the necessary cabling and trunking within the local exchanges to access those licensees' mandated services.
- 19 Accordingly, on the first issue, IDA requires 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.
- 20 In addition, on the second issue, to give effect to IDA's intention to increase administrative convenience (as discussed in paragraph 18 above), IDA requires SingTel to propose modifications to its RIO to enable licensees, whose mandated services may only be accessed at SingTel's local exchanges, to offer access to SingTel's local exchanges to other operators who wish to deploy their own facilities to SingTel's local exchanges for the purpose of obtaining the licensees' mandated services.

SECTION 2 – Removal of Number Portability Schedule from SingTel's RIO

- 21 In the RIO Consultation Paper, IDA proposed to remove the Number Portability Schedule from SingTel's RIO as the fixed-line voice communication services market in Singapore has evolved into a multi-player market. As such, for any new fixed-line voice service provider to offer fixed number portability, instead of entering into the Number Portability Schedule under SingTel's RIO, where SingTel is the only Donor Network Operator or Recipient Network Operator, it would likely have to enter into a multi-party number portability service arrangement with all existing fixed-line voice operators including SingTel.
- 22 On a related matter, IDA also proposed the development of industry advisory guidelines, in addition to the existing number portability obligations imposed under the licence conditions, to provide guidance to new and existing fixed-line voice service providers on their negotiations for multi-party number portability service arrangements.
- 23 Three respondents provided comments and were supportive of both proposals. The respondents supported IDA's view to remove the Number Portability Schedule from SingTel's RIO since fixed number portability now requires multi-party service arrangements.

- 24 On the proposal to develop industry advisory guidelines, one of the respondents added that in order to develop guidelines that address key implementation-related issues, particularly the key technologies supporting number portability, and porting processes and timelines, these guidelines should be developed in consultation with the fixed-line voice service providers. IDA agrees with the above comments and would consider the views of fixed-line service providers during the development of the advisory guidelines.
- 25 Accordingly, IDA will allow SingTel to remove the Number Portability Schedule from SingTel's proposed revised RIO, and to make all necessary consequential amendments to the revised RIO to reflect the removal of the said schedule.

SECTION 3 – Provision of Transit Service

- 26 In the RIO Consultation Paper, IDA had proposed to clarify that SingTel's obligation to offer transit services under its RIO, between licensees interconnected at its interconnect gateway switches should still apply in the event that the existing interconnection link(s) between SingTel and the terminating party reach full capacity, as SingTel should procure additional link capacity in such a circumstance. Nevertheless, SingTel should be allowed to recover the reasonable additional costs it would incur to procure additional link capacity for the conveyance of such transit traffic. As such, IDA also sought comments on the appropriate cost recovery mechanism for SingTel.
- 27 The response to the proposal was mixed. One respondent objected to this proposal and expressed the view that the transit operator should not bear the cost inefficiencies in acquiring and dimensioning of interconnection link capacity for conveyance of transit traffic between operators; and the alternative to entering into SingTel's RIO for transit services was to enter into SingTel's wholesale origination and termination services. Two respondents however supported IDA's proposal to require SingTel to procure additional link capacity for the conveyance of transit traffic and to allow SingTel to recover the reasonable costs of doing so. IDA notes that one respondent commented that the cost recovery mechanism should be addressed in the upcoming review of SingTel's proposed RIO.
- 28 On the above comments, IDA notes that the first respondent may have misunderstood the proposal. IDA would like to clarify that under its proposal, SingTel (the transit operator) will be allowed a reasonable recovery of additional costs it may incur for the conveyance of such transit traffic, hence it would not be required to bear the costs associated with establishing the transit interconnection links. IDA disagrees with the first respondent's comments that wholesale origination and termination services would serve as an effective alternative; as with all voluntary services schemes, such services may be terminated/withdrawn upon notice by the service provider. In addition, IDA would like to emphasise that SingTel's obligation to offer transit services

between licensees interconnected at its interconnect gateway switches, is stated under Appendix 2 of Code 2010.

- 29 In this connection, IDA will require SingTel to propose modifications to the transit services provided under its revised RIO to specify that it will still provide transit services, notwithstanding that it may not have any capacity available in the interconnection link(s) between itself and the terminating party. Subject to IDA's approval and the principles of cost recovery set out in Appendix 1 of Code 2010, SingTel may propose a reasonable recovery of costs it may incur for the conveyance of such transit traffic.

PART III: CONCLUSION

- 30 Following the conclusion of SingTel's RIO public consultation, IDA will next require SingTel to submit to IDA for approval the proposed modifications to its RIO to conform to the requirements of Code 2010, including the proposed modifications stipulated in this Explanatory Memorandum.