



Consultation Paper:

REVIEW OF
SINGAPORE TELECOMMUNICATIONS LIMITED'S
REFERENCE INTERCONNECTION OFFER

INFOCOMM DEVELOPMENT AUTHORITY OF SINGAPORE

18 June 2003

REVIEW OF SINGAPORE TELECOMMUNICATIONS LIMITED'S REFERENCE INTERCONNECTION OFFER

1 INTRODUCTION

- 1.1 With the full liberalisation of our telecommunication market on 1 April 2000, IDA has implemented the Code of Practice for Competition in the Provision of Telecommunication Services (the “Code”) on 29 September 2000, setting out the regulatory obligations and procedures that licensees have to comply with in a competitive multi-operator environment. IDA recognised that dominant licensees¹ lack the economic and commercial incentives to enter voluntarily into interconnection agreements with competing licensees. Consequently, IDA cannot rely solely on market forces to ensure that dominant licensees enter into interconnection agreements in a timely manner. Therefore, under section 5 of the Code, IDA required dominant licensees to provide a Reference Interconnection Offer (the “RIO”) to competing licensees. The RIO must contain a comprehensive and complete written statement of IDA-approved prices, terms and conditions on which the dominant licensees must provide IDA-designated Interconnection Related Services (“IRS”) and wholesale services to any competing licensee. The RIO must also be sufficiently detailed to enable a competing licensee that is willing to accept its prices, terms and conditions to obtain IRS and wholesale services without having to engage in negotiations with the dominant licensees².
- 1.2 Following the implementation of the Code, SingTel was required to submit a proposed RIO³ to IDA for approval. The SingTel’s RIO was reviewed and approved by IDA on 31 January 2001. When a competing licensee accepts SingTel’s RIO and enters into a RIO agreement with SingTel, the RIO agreement will be in force for 3 years from the date which the RIO agreement is submitted to IDA⁴.

2 POLICY POSITION ON THE RIO

- 2.1 The RIO facilitates rapid market entry by new competing licensees. As dominant licensees lack the economic and commercial incentives to enter

¹ Currently, Singapore Telecommunications Limited (“SingTel”) and StarHub Cable Vision (“SCV”) have been designated as dominant licensees.

² Interconnection with dominant licensees pursuant to a RIO is only one of the options set out in section 5.2 of the Code for entering into an interconnection agreement with dominant licensees.

³ SCV was exempted from obligations to offer a RIO when the Code came into effect. This is because the provision of IRS by SCV’s cable network was not technically feasible.

⁴ This is provided under clause 4.2 of SingTel’s RIO.

voluntarily into interconnection agreements with competing licensees, the RIO will help to reduce or eliminate lengthy and protracted negotiations with dominant licensees on reaching interconnection agreements. For interconnection with SingTel, competing licensees may choose to accept the prices, terms and conditions of SingTel's RIO and to begin providing their services in the market quickly.

- 2.2 Given that SingTel continues to possess market power and control facilities that directly connect to end-users, IDA's policy position is that SingTel's RIO continues to be relevant and critical in facilitating rapid market entry by new entrants and to ensure seamless any-to-any connectivity between existing operators and the dominant licensee.
- 2.3 In this respect, this consultation is for the purpose of reviewing the prices, terms and conditions of SingTel's RIO to ensure that SingTel's RIO continues to be relevant to the industry's needs so as to enable SingTel and competing licensees to implement their RIO agreements more effectively.

3 REVIEW OF PRICES OF IRS

- 3.1 IDA has determined the prices of the IDA-designated IRS based on the Forward Looking Economic Cost ("FLEC") using Long Run Average Incremental Cost ("LRAIC") charging methodology. This is because: (i) IDA believes that in a competitive environment, market forces would be driven towards FLEC and lead to lower prices for end-users; (ii) FLEC-based charging minimises a dominant licensee's ability to engage in anti-competitive cross subsidisation; and (iii) FLEC creates the right "build or buy" investment incentives for facilities-based entry by competitors, whilst preserving current investments. The adoption of FLEC using LRAIC charging methodology is also in line with IDA's policy approach to encourage facilities-based competition and to promote and maintain effective competition.
- 3.2 IDA notes that the conditions for application of FLEC using LRAIC charging methodology have remained unchanged with IDA's continued policy emphasis on facilities-based competition to promote and maintain effective competition. In keeping with IDA's policy approach, IDA will review the prices of IRS based on the FLEC using LRAIC charging methodology.

4 INVITATION FOR COMMENTS

- 4.1 To facilitate IDA's review of SingTel's RIO, IDA seeks the views and comments of the industry on SingTel's RIO, including the timeframes and processes contained within⁵. All views and comments should be supported with relevant reasons and appropriate justifications. This will allow IDA to have a better understanding of the issues and areas which SingTel's RIO can be modified or streamlined to ensure effective implementation of interconnection agreements between SingTel and competing licensees. In particular, IDA welcomes views and comments on the specific provisions in the SingTel's RIO as set out in **Annex 1** of this Consultation Paper. During IDA's review of SingTel's RIO, IDA will review and determine the prices of IRS based on the FLEC using LRAIC charging methodology.
- 4.2 All views and comments should reach IDA before **12 pm, 15 July 2003**. Comments must be submitted in both hard and soft copy (preferably in Microsoft Word format). To facilitate IDA's review, respondents are requested to submit clear and succinct comments of preferably no longer than 30 pages and to include an executive summary of no more than 5 pages highlighting the key issues in their submission. Respondents are also required to include their personal/company particulars as well as the correspondence address, contact numbers and email addresses on the cover page of their submissions. All submissions should be addressed to:

Mr Andrew Haire
Senior Director (Policy & Regulation)
Infocomm Development Authority of Singapore
8 Temasek Boulevard
#14-00 Suntec Tower Three
Singapore 038988
Fax: (65) 6211-2116

AND

Please submit your softcopies via e-mail to:

Josephine_Ng@ida.gov.sg

- 4.3 IDA will consider the views and comments and target to complete its review within the next 3-4 months.

⁵ The latest copy of SingTel RIO can be found on IDA's website under Policy & Regulation > Interconnection & Access > SingTel's RIO (updated 20 May 2003)

- 4.4 IDA reserves the right to make public all or parts of any written submissions made in response to this Consultation Paper and to disclose the identity of the source. Any part of the submission, which is considered by respondents to be commercially confidential, should be clearly marked and placed as an annex. IDA will take this into account regarding disclosure of the information submitted.

REVIEW OF SINGTEL'S REFERENCE INTERCONNECTION OFFER

1. IDA welcomes views and comments on the specific provisions in SingTel's RIO set out in this Annex. All views and comments should be supported with relevant reasons and appropriate justifications.

2. **PART 1 – ACCEPTANCE PROCEDURES**

- 2.1 Clause 2: Assessment of Notification of Acceptance of RIO

IDA welcomes views and comments on whether the criterion in clause 2.1(e) that renders a non-conformance of a Notification of Acceptance of RIO is appropriate and relevant.

3. **PART 2 – REFERENCE INTERCONNECTION OFFER AGREEMENT**

- 3.1 Clause 4: Commencement, Duration and Review

IDA notes that the RIO Agreements between the parties will be automatically amended under clause 36.1 to effect RIO amendments after IDA's review of the RIO. IDA welcomes views and comments on any other issues that will impact the parties' RIO Agreements which IDA would need to address.

- 3.2 Clause 21: Insurance

IDA welcomes views and comments on the value of broad form of public liability policy insurance which a Requesting Licensee is required to maintain with an insurance company for the term of the RIO Agreement. IDA's initial assessment is that the value of at least S\$20 million (in the case of an FBO) in respect of each claim may have been excessive for the purpose of the RIO Agreement where FBOs may not lease the entire suite of IRS offered under the RIO. IDA welcomes views and comments on how the public liability insurance can be fine-tuned to meet industry's and SingTel's needs. IDA also welcomes views and comments on the S\$1 million quantum (in the case of an SBO).

3.3 Clause 22: Credit Management and Security Requirement

IDA welcomes views and comments on the requirement for the Requesting Licensee to maintain a Security Requirement with SingTel for a period of up to 3 months following the later of the termination of the RIO Agreement and payment of all outstanding amounts under the RIO Agreement. IDA's preliminary view is that such requirement may not be necessary after the termination of the RIO Agreement where payment for all outstanding amounts has been made.

4. **SCHEDULE 1A – PHYSICAL AND/OR VIRTUAL INTERCONNECTION FOR FBOS**

4.1 Clause 8: Forecasting and Provisioning of Interconnect Capacity

IDA welcomes views and comments on the provision of forecasts between the Parties for provisioning of interconnect capacity. In particular, IDA welcomes views on whether the current forecast requirements are effective and if not, how these requirements can be streamlined or improved.

5. **SCHEDULE 1B – VIRTUAL INTERCONNECTION FOR SBOS**

5.1 Clause 2: Interconnect Configuration

IDA welcomes views and comments on the Minimum Interconnection Capacity required for SBOs' interconnection with SingTel's network. Is the Minimum Interconnection Capacity, i.e., two 2Mbps E1 links to each SingTel SGS, excessive and if so, what should be the appropriate Minimum Interconnection Capacity?

6. **SCHEDULE 2A – CALL ORIGINATION SERVICE**

6.1 Clause 3: Call Types

IDA welcomes views and comments on the current process set out in clause 3 to acquire Call Origination Service for a Call Type from the Supplier. IDA is of the view that the process timelines can be streamlined to facilitate an earlier provision of call services.

7. SCHEDULE 2B – CALL TERMINATION SERVICE**7.1 Clause 2: Call Types**

IDA welcomes views and comments on the current process set out in clause 2 to acquire Call Termination Service for a Call Type from the Supplier. IDA is of the view that the process timelines can be streamlined to facilitate an earlier provision of call services.

7.2 Clause 3: Number Level Activation

IDA notes that there is currently no timeframe for the Supplier to complete number level activation. IDA welcomes views and comments on the typical timeframe governing the activation of number level in a network.

8. SCHEDULE 2C – CALL TRANSIT SERVICE**8.1 Clause 3: Call Types**

IDA welcomes views and comments on the current process set out in clause 3 to acquire Call Transit Service for a Call Type from the Supplier. IDA is of the view that the process timelines can be streamlined to facilitate an earlier provision of call services.

9. SCHEDULE 3A – LICENSING OF LOCAL LOOP / SUB-LOOP**9.1 Clause 2: Availability of Local Loop or Sub Loop**

IDA welcomes views and comments on the criteria in assessing the availability of Local Loop or Sub Loop.

9.2 Clause 5: Delivery

IDA notes that currently, SingTel will provide Local Loop or Sub Loop by a provisioning date notified in the acceptance of the Request for Local Loop or Sub Loop under clause 4.4. IDA welcomes views and comments on a reasonable timeframe for the provisioning of Local Loop or Sub Loop. IDA will consider requiring SingTel to state the timeframe for provisioning of Local Loop or Sub Loop in its RIO to provide certainty to Requesting Licensees.

9.3 Clause 6: SingTel Build

IDA welcomes views and comments on whether the requirement of SingTel to construct Local Loop or Sub Loop is a useful and feasible option to address the unavailability of Local Loop or Sub Loop. IDA welcomes alternative proposals.

10. **SCHEDULE 3B – LINE SHARING**

10.1 Annex 3B.2: Spectral Compatibility of xDSL Systems Plan

IDA welcomes views and comments on the Spectral Compatibility of xDSL Systems Plan to ensure its continual relevance to the industry developments in provision of xDSL services.

11. **SCHEDULE 5A – LICENSING OF LEAD-IN DUCT AND ITS ASSOCIATED LEAD-IN MANHOLES**

11.1 Clause 2: Availability of Building Lead-in Duct/Lead-in Manhole

IDA welcomes views and comments on the criteria in assessing the availability of Building Lead-in Duct and its associated Lead-in Manhole.

11.2 Clause 3; Clause 4: Ordering And Provisioning Procedure; Studies

IDA welcomes views and comments on whether the ordering and provisioning procedures can be streamlined. In particular, IDA is of the view that SingTel need not provide an estimated date for which the Request for Building Lead-in Duct and its associated Lead-in Manhole would be processed (Processing Date). Instead, SingTel should proceed and complete the desk study within 10 working Business Days from the date which SingTel acknowledges the receipt of the Request for Building Lead-in Duct and its associated Lead-in Manhole. IDA welcomes alternative proposals or procedures.

11.3 Clause 5: Delivery

IDA notes that currently, SingTel will undertake the construction of Connection Duct for the purpose of facilitating the Requesting Licensee to connect its ducts to SingTel's Lead-in Manhole. This is provided under Clause 5.3 to Clause 5.7. IDA is considering whether a Requesting

Licensee should be allowed to undertake the construction to connect its ducts directly to SingTel's Lead-in Manhole, with additional measures to ensure that the Requesting Licensee does not cause damage to SingTel's underground plant. IDA welcomes views and comments on both approaches including alternative proposals.

12. SCHEDULE 5B – LICENSING OF TOWER SPACE & CO-LOCATION SPACE AT TOWER SITE

IDA welcomes views and comments on the provisions in Schedule 5B to ensure that these provisions are still relevant in meeting the industry's needs.

13. SCHEDULE 8A – CO-LOCATION FOR POINT OF INTERCONNECTION (POI)

13.1 Clause 2: Availability at a Co-location Site

IDA welcomes views and comments on the criteria in assessing the availability of Co-Location Space at a Co-Location Site.

13.2 Clause 5: Site Preparation Work

IDA notes that currently under clause 5.2, SingTel shall complete the Site Preparation Work within the period advised under clause 4.4. IDA welcomes views and comments on a reasonable period for completion of Site Preparation Work. IDA will consider requiring SingTel to state the timeframe for completion of Site Preparation Work in its RIO to provide greater clarity and certainty to Requesting Licensees.

IDA also notes that currently, SingTel will undertake the construction of Connection Duct for the purpose of facilitating the Requesting Licensee to connect its ducts to SingTel's Lead-in Manhole. This is provided under Clause 5.3. IDA is considering whether a Requesting Licensee should be allowed to undertake the construction to connect its ducts directly to SingTel's Lead-in Manhole, with additional measures to ensure that the Requesting Licensee does not cause damage to SingTel's underground plant. IDA welcomes views and comments on both approaches.

13.3 Clause 7: Term of Licence

IDA welcomes views and comments on whether the term of licence should be automatically extended till the termination of the licence as IDA notes that currently, there is no such provisions governing the renewal of licence.

14. **SCHEDULE 8B – CO-LOCATION FOR POINT OF ACCESS (POA)**

14.1 Clause 2: Availability at a Co-location Site

IDA welcomes views and comments on the criteria in assessing the availability of Co-Location Space at a Co-Location Site.

14.2 Clause 5: Site Preparation Work

IDA notes that currently under clause 5.2, SingTel shall complete the Site Preparation Work within the period advised under clause 4.4. IDA welcomes views and comments on a reasonable period for completion of Site Preparation Work. IDA will consider requiring SingTel to state the timeframe for completion of Site Preparation Work in its RIO to provide greater clarity and certainty to Requesting Licensees.

IDA also notes that under clause 5.3, as part of the Site Preparation Work, SingTel shall construct two 110mm Connection Ducts of one metre from the designated Lead-in Manhole for the Requesting Licensee to connect its ducts to SingTel's Lead-in Manhole for the purpose of backhauling the Requesting Licensee's traffic from the Co-Location Site to its own exchange or office. The IDA notes that this is not the only means for a Requesting Licensee to backhaul its traffic. IDA welcomes views and comments on other feasible alternatives which a Requesting Licensee will consider in backhauling its traffic from the Co-Location Site to its exchange or office, and how this can be provided in SingTel's RIO.

14.3 Clause 7: Term of Licence

IDA welcomes views and comments on whether the term of licence should be automatically extended till the termination of the licence as IDA notes that currently, there is no such provisions governing the renewal of licence.

15. **SCHEDULE 8C – CO-LOCATION AT SATELLITE EARTH STATION**

IDA welcomes views and comments on the provisions in Schedule 8C to ensure that these provisions are still relevant in meeting the industry's needs.

16. **SCHEDULE 8D – CO-LOCATION AT SUBMARINE CABLE LANDING STATIONS**

16.1 Clause 1: General

IDA welcomes views and comments on the requirements laid out in clause 1.2 and 1.3 for access to Co-location Space at Submarine Cable Landing Stations. In particular, IDA welcomes comments on whether these requirements are still valid and if there are other situations that IDA should consider in allowing access to Co-location Space.

16.2 Clause 2: Availability at a Co-location Site

IDA welcomes views and comments on the criteria in assessing the availability of Co-Location Space at a Co-Location Site.

16.3 Clause 5: Site Preparation Work

IDA notes that currently under clause 5.2, SingTel shall complete the Site Preparation Work within the period advised under clause 4.4. IDA welcomes views and comments on a reasonable period for completion of Site Preparation Work. IDA will consider requiring SingTel to state the timeframe for completion of Site Preparation Work in its RIO to provide certainty to Requesting Licensees.

16.4 Clause 7: Term of Licence

IDA welcomes views and comments on whether the term of licence should be automatically extended till the termination of the licence as IDA notes that currently, there is no such provisions governing the renewal of licence.

17. SCHEDULE 9 – CHARGES

IDA understands that there have been some deployment of integrated IGS/SGS (i.e., IGS/SGS with Local Switch functionality) by licensees, resulting in instances where inter-network calls between operators interconnected at the IGS level, are switched only via a single switch, as compared to two standalone switches (i.e., one IGS/SGS and one Local Switch). IDA therefore, welcomes views and comments on whether the call charges for Call Origination Service (Schedule 2A – Origination) and Call Termination Service (Schedule 2B – Termination), should differentiate between interconnection with standalone IGS/SGS and Local Switch and interconnection with Integrated IGS/SGS.

18. SCHEDULE 11 – DISPUTE RESOLUTION

IDA welcomes views and comments on the dispute resolution procedures. In particular, IDA welcomes views and comments on whether the current dispute resolution procedures are effective and if not, how the procedures can be improved.