



**CONSULTATION PAPER ISSUED BY
THE INFO-COMMUNICATIONS DEVELOPMENT AUTHORITY OF SINGAPORE**

**PRELIMINARY DECISION ON THE REQUEST BY
SINGAPORE TELECOMMUNICATIONS LIMITED
FOR EXEMPTION FROM DOMINANT LICENSEE OBLIGATIONS
WITH RESPECT TO THE
BUSINESS AND GOVERNMENT CUSTOMER SEGMENT
AND INDIVIDUAL MARKETS**

26 August 2008

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PART I: INTRODUCTION

- 1 Singapore Telecommunications Limited ("**SingTel**") has requested the Info-communications Development Authority of Singapore ("**IDA**"), pursuant to Sub-section 2.5.1 of the Telecom Competition Code 2005 ("**Code**"), to exempt it from the application of Dominant Licensee requirements contained in Sections 4 and 8 of the Code to most telecommunication services that SingTel provides to business and government End Users ("**SingTel's Request**"). Specifically, SingTel seeks exemption for the provision of: (a) telecommunication services in six individual markets ("**Market-Based Request**"); and (b) all retail telecommunication services to customers in the business and government customer segment with an annual spend on telecommunication services of at least S\$250,000 ("**Customer Segment Request**"). A copy of SingTel's Request, together with IDA's Consultation Paper ("**First Public Consultation**") and the comments received from the First Public Consultation are available on the IDA website.
- 2 Based on its review of the evidence and industry's comments, IDA has arrived at a Preliminary Decision regarding SingTel's Request. This Consultation Paper describes: (a) the regulatory relief that IDA previously granted SingTel; (b) SingTel's Request; (c) the comments received in response to IDA's First Public Consultation, and through interviews with industry participants and End Users; (d) the legal standards and procedures that IDA uses to assess requests for exemption from Dominant Licensee requirements; (e) IDA's analysis of SingTel's Request; (f) IDA's Preliminary Decision; and (g) procedures for submitting comments on IDA's Preliminary Decision.

PART II: EXECUTIVE SUMMARY

- 3 SingTel's Request is far broader than its previous exemption requests. If IDA were to grant SingTel's Request in its entirety, SingTel would be relieved from Dominant Licensee regulation for *all* telecommunication services that it provides to government and business customers who spend at least S\$250,000 per year on telecommunication services, and for *most* of the telecommunication services that it provides to government and business customers who spend less than S\$250,000 per year on telecommunication services.

- 4 IDA declines to grant SingTel's Request in its entirety. However, market data shows that the Terrestrial International Private Leased Circuit ("**IPLC**") and Backhaul markets are increasingly competitive. IDA, therefore, has concluded that continued imposition of *ex ante* Dominant Licensee obligations in the Terrestrial IPLC and Backhaul markets is no longer necessary and, therefore, will grant SingTel an exemption in these markets. In addition, IDA will retain the current exemption from *ex ante* regulation in the International Managed Data Services ("**IMDS**") market¹. However, because SingTel retains the ability to leverage its market power in the Local Leased Circuit ("**LLC**") market to distort competition in the Terrestrial IPLC, Backhaul and IMDS markets, IDA will not exempt SingTel from *ex post* regulation in these markets. IDA has further concluded that, because effective competition has not yet taken root in the Business Local Telephone Service ("**BLTS**"), LLC and Local Managed Data Services ("**LMDS**") markets, IDA should not grant at this time any exemption in those markets. Finally, IDA has concluded that it should not grant SingTel's proposed Customer Segment Request.

PART III: REGULATORY RELIEF GRANTED IN PRIOR EXEMPTION PROCEEDING

- 5 IDA has previously considered the level of competition in the market for a wide range of telecommunication services provided to government and business End Users, and has granted SingTel significant regulatory relief. In 2004, SingTel submitted a request for exemption from Dominant Licensee obligations for 10 categories of services – consisting of 28 separate telecommunication product offerings – SingTel collectively labelled as the International Capacity Services ("**ICS**") market ("**ICS Request**"). IDA issued its decision on SingTel's ICS Request on 12 April 2005 ("**ICS Decision**").
- 6 At that time, IDA determined that the 28 telecommunication product offerings for which SingTel had requested an exemption did not constitute a single market because they were not reasonable substitutes for each other. Rather, IDA concluded, these telecommunication product offerings fell within 10 separate markets: Backhaul, Terrestrial IPLC, IMDS, International IP Transit, Leased Satellite Bandwidth, Very Small Aperture Terminal ("**VSAT**") Service, Digital Video Broadcast-IP ("**DVB-IP**"), Satellite TV Uplink, Satellite TV Downlink and Satellite International Private Leased Circuit ("**Satellite IPLC**") markets.
- 7 Based on the evidence in that proceeding, IDA concluded that continued imposition of *ex ante* and *ex post* Dominant Licensee obligations was no longer necessary for services that SingTel provided in the International IP Transit, Leased Satellite Bandwidth, VSAT, DVB-IP, Satellite TV Uplink, Satellite TV Downlink and Satellite IPLC markets, as there was little evidence that SingTel had either significant market power, or the ability to leverage its dominant position in other markets in order to impede competition in these markets. IDA further concluded that, although competition had developed in the IMDS market, SingTel retained the potential to leverage on its dominance in the LLC market to distort competition in this downstream market.

¹ IDA had previously granted SingTel an exemption from *ex ante* Dominant Licensee obligations for the IMDS market in April 2005.

Accordingly, IDA exempted SingTel from the application of *ex ante*, but not *ex post*, Dominant Licence obligations to SingTel's provision of telecommunication product offerings in the IMDS market.

- 8 Finally, IDA determined that, while competition was developing in the Backhaul and Terrestrial IPLC markets, these markets were not yet competitive. Therefore, IDA rejected SingTel's request for an exemption in these markets. However, IDA noted that it had taken significant measures – especially the adoption of the LLC and Cable Landing Station Decisions² – that IDA expected would promote competition in these downstream markets.
- 9 IDA's ICS Decision can be found on the IDA website at www.ida.gov.sg under "Policies & Regulation - Consultation Papers & Decisions".

PART IV: SINGTEL'S REQUEST

- 10 SingTel submitted its current request to IDA on 10 October 2007. SingTel clarified that the Market-Based Request and Customer Segment Request were intended to be cumulative, rather than alternative, requests. SingTel explained that there are some customers who acquire services in the six individual markets and who do not fall within the scope of the Customer Segment Request, such as business and government End Users who spend less than S\$250,000 per year on telecommunication services, or customers who obtain SingTel's telecommunication service on a wholesale basis.
- 11 The six individual markets for which SingTel requested an exemption under the Market-Based Request are: BLTS; LLC; Backhaul; IPLC; IMDS; and LMDS. **Table 1** below identifies SingTel's product offerings that fall within each of these markets³.

² See IDA's Decisions on Mandating Wholesale of SingTel's Local Leased Circuits (16 Dec 2003) and Allowing Greater Access to Cable Landing Stations (10 Sep 2004) on the IDA website at www.ida.gov.sg.

³ A Glossary, which contains further description of each telecommunication service category, is attached as Annex A.

Table 1 – List of Service Categories for which SingTel Sought an Exemption

Individual Markets *	Service Offers	SingTel Product Offerings
Business Local Telephony Service (retail only) (BLTS)	Fixed Telephone Line; ISDN; PhoneNet	<ul style="list-style-type: none"> • DEL • ISDN2 • ISDN30 • PhoneNet • i-PhoneNet
Local Leased Circuits (retail only) (LLC)	Analogue Local Leased Circuits; Digital Local Leased Circuits	<ul style="list-style-type: none"> • Analogue Local Leased Circuits • Digilink • Digiplus • Weblink • Webplus
Backhaul	Backhaul Service, including Point-to-Point and Backhaul to GNCC	<ul style="list-style-type: none"> • Backhaul (to GNCC) • Point-to-Point Backhaul • Standard Point-to-Point • Backhaul • Backhaul with Interface Protection • Point-to-Point Backhaul with Interface Protection
Terrestrial International Private Leased Circuits (IPLC)	Bilateral International Private Leased Circuits; End-to-End International Private Leased Circuits	<ul style="list-style-type: none"> • ConnectPlus Bilateral IPLC • ACASIA IPLC • ConnectPlus N2N IPLC
International Managed Data Services (IMDS)	International Frame Relay; International ATM; International IP- VPN; International Ethernet	<ul style="list-style-type: none"> • Bilateral FR • ConnectPlus FR • ACASIA FR • Bilateral ATM • ConnectPlus ATM • ACASIA ATM • ConnectPlus IP-VPN • ConnectPlus Ethernet VPN • ConnectPlus Ethernet- Line
Local Managed Data Services (LMDS)	Local ATM; Local IP; Local Metro-Ethernet	<ul style="list-style-type: none"> • Local ATM • Meg@POP (Bizlink; MegaLink; EthernetLink; iLink; SymLink; DirectLink; HomeLink; VLink) • Metro-Ethernet

* Markets are defined under the respective markets found under Part VII "IDA's Assessment".

- 12 For both the Customer Segment Request and Market-Based Request, SingTel requested IDA to exempt it from application of the following Dominant Licensee obligations (to the extent applicable):
- (a) Sub-section 4.2.1.1 – Duty to Provide Service at Just and Reasonable Prices, Terms and Conditions;
 - (b) Sub-section 4.2.1.2 – Duty to Provide Service on a Non-Discriminatory Basis;
 - (c) Sub-section 4.2.1.3 – Duty to Provide Unbundled Telecommunication Services;
 - (d) Sub-section 4.2.2.1 – Duty to Provide Service on Reasonable Request;

- (e) Sub-section 4.2.2.2 – Duty to Allow Resale of End User Telecommunication Services;
 - (f) Sub-section 4.2.2.3 – Duty to Allow Sales Agency;
 - (g) Sub-section 4.3 – Wholesale Services;
 - (h) Sub-section 4.4.1 – Services for Which a Dominant Licensee Must File Tariffs;
 - (i) Sub-section 4.4.2.1 - Information to be Included
 - (j) Sub-section 4.5 – Duty to Publish Tariffs;
 - (k) Sub-section 4.6 – Duty to Provide Service Consistent with Effective Tariffs;
 - (l) Sub-section 8.2.1.1 – Predatory Pricing;
 - (m) Sub-section 8.2.1.2 – Price Squeezes;
 - (n) Sub-section 8.2.1.3 – Cross-subsidisation;
 - (o) Sub-section 8.2.2.1 – Discrimination; and
 - (p) Sub-section 8.2.2.2 – Predatory Network Alteration.
- 13 In support of its Market-Based Request, SingTel contended that it does not have significant market power in any of the six individual markets. To the contrary, SingTel asserted, it is “*subject to extensive and intensive competition such that the continued application of the Dominant Licensee obligations . . . is not necessary to protect customers or to promote or preserve effective competition amongst Licensees.*” SingTel further claimed that each of the six markets is “*characterised by: low barriers to entry . . . ; competitive new entry and infrastructure rollout; presence of local, regional and global players; a wide range of substitute services; considerable supply-side substitutability; strong countervailing power held by customers . . . ; continual downward price trends; and ease of switching between service providers.*”⁴
- 14 SingTel asserted that its Customer Segment Request is a “*narrow*” request that would “*only include large business and government customers whose telecommunications services contracts are of significant value.*” SingTel further claimed that the provision of telecommunication services to these customers is “*extremely competitive*” for the same reasons as the individual markets in the Market-Based Request. In addition, SingTel contended that there is effective competition for customers who spend in excess of S\$250,000 per year on telecommunication services because: (a) “*it is economical*” for competitors “*to invest in infrastructure to provide services*” to these customers; (b) much of the competition for these customers is in “*managed services*” and as a result “*SingTel derives no advantage from mere*

⁴ SingTel's Request, Paragraph 1.8.

ownership of infrastructure"; and (c) business and government customers purchase "packages" of services, through competitive tenders, on a short-term basis, making "large portions of the market . . . continually available for competition by both existing market participants and new entrants".⁵

- 15 In response to questions from IDA, SingTel subsequently clarified that it intends for the Customer Segment Request to apply to revenues spent by business and government customers for *retail* telecommunication services purchased in Singapore from *any* operator. This includes service providers who are retail customers of SingTel.
- 16 SingTel also clarified that it is seeking exemption from the Dominant Licensee obligations applicable to wholesale services, which are contained in Sub-section 4.3 of the Code, only for Terrestrial IPLC and Backhaul services under the Market-Based Request.
- 17 As discussed above, in the ICS Decision issued in 2005, IDA considered the competitiveness of three of the six individual markets at issue in this proceeding: Backhaul, IPLC and IMDS. IDA concluded that the Backhaul and IPLC markets were not yet sufficiently competitive to allow removal of any Dominant Licensee regulation. IDA also concluded that SingTel should remain subject to *ex post* regulation in the IMDS market because, while that market was competitive, SingTel retained the ability to leverage its control of LLCs to restrict competition in the IMDS market. This proceeding thus requires IDA to determine with respect to the Backhaul, IPLC and IMDS markets whether, during the last three years since IDA's ICS Decision:
 - (a) SingTel has lost its significant market power in the Backhaul and IPLC markets; and
 - (b) SingTel has lost the ability to leverage its dominance in the LLC market to distort competition in the IMDS market.

This proceeding also requires IDA to assess the level of competition in the BLTS, LLC and LMDS markets.

PART V: FIRST PUBLIC CONSULTATION

- 18 Eight parties filed comments in response to IDA's First Public Consultation Paper: Asiakomnet Multimedia Pte Ltd ("**Asiakomnet**"); Asia Pacific Carriers' Coalition ("**APCC**"); AT&T Worldwide Telecommunications Services Singapore Pte Ltd ("**AT&T**"), BT Singapore Pte Ltd ("**BT**"); China Motion Singapore; France Telecom Group Orange ("**FT**"); MobileOne Ltd ("**M1**"); and StarHub Ltd ("**StarHub**"). All of the commenting parties opposed SingTel's Request.
- 19 IDA subsequently requested additional information and market data from SingTel and other major industry participants. IDA also conducted interviews with SingTel, most of the commenters who participated in the First Public

⁵ See SingTel's Request Paragraphs 1.4, 1.6 and 2.5.

Consultation, other significant industry participants, and a number of End Users.

- 20 IDA thanks all parties for their active participation throughout this proceeding. The information and comments provided significantly assisted IDA in assessing SingTel's Request and in reaching this Preliminary Decision.

Comments Regarding the Applicable Legal Standard and Review Procedures

- 21 The commenters raised several issues regarding the applicable legal standard and review procedures.
- (a) *Confidentiality of Information.* AT&T, APCC, BT, FT and StarHub expressed strong concerns regarding their ability to effectively comment on SingTel's Request because much of SingTel's evidence was submitted to IDA on a confidential basis.
 - (b) *IDA's Process for Reviewing SingTel's Request.* Several commenters contended that, prior to issuing the Consultation Paper, IDA should have conducted a detailed and independent analysis of relevant markets, made these results known and allowed the public to comment on its preliminary assessment.
 - (c) *Exemption from ex post Dominant Licensee Obligations.* Several commenters opposed granting SingTel any exemption from Section 8 of the Code, which contains *ex post* "competition law" rules. Indeed, BT suggested in its public comments that, "*No exemption should be granted to SingTel until the telecommunication sector is included in Singapore's national competition regime, the Competition Act 2004.*"
 - (d) *Permissibility of Customer Segment Request.* APCC, BT and FT contend that SingTel's Customer Segment Request does not constitute a "*narrow*" request, as provided for in advisory guidelines issued by IDA on 30 September 2005 governing requests for exemptions under Sub-section 2.5 of the Code ("**Exemption Guidelines**"), because grant of SingTel's Request would result in a substantial portion of SingTel's services being deregulated. As APCC observed, the Customer Segment Request would give *SingTel a free hand to operate in virtually the entire government and enterprise sector free of all the normal competition safeguards.*"

Comments Regarding SingTel's Market Position

- 22 Almost all the commenters claimed that SingTel has significant competitive advantages, which preclude grant of regulatory relief in any market. In particular, the commenters asserted that:
- (a) Business and government End Users have a strong preference for purchasing telecommunication services from a single operator. SingTel is the only Licensee that has deployed a ubiquitous network throughout Singapore, which provides a significant competitive advantage;

- (b) Operators have little incentive to roll-out infrastructure, as evidenced by the limited amount of deployment since liberalisation in 2000, and the Singapore Government's decision to fund a Next Generation National Broadband Network ("**Next Gen NBN**");
 - (c) SingTel has the ability to use its control over LLCs, to impede competition in downstream markets, such as BLTS and LMDS;
 - (d) SingTel's ownership of National Computer Systems ("**NCS**") provides SingTel with a competitive advantage in bidding for business and government tenders involving telecommunication and IT services; and
 - (e) SingTel does not provide appropriately priced wholesale services, especially LLCs, which are necessary to facilitate competition in the downstream markets.
- 23 During the interviews, IDA spoke with business and government End Users from various sectors, with a wide range of annual telecommunication spends.
- (a) A few large multinational companies ("**MNCs**") stated that, because of their multi-million dollar annual telecommunication spend, they have the ability to obtain telecommunication services (in particular, IPLC and IMDS) from multiple carriers at competitive rates. Even so, several MNCs also suggested that the cost for LLCs remains higher in Singapore than in comparable jurisdictions, such as Hong Kong.
 - (b) By contrast, the majority of End Users stated that they were "locked-in" to SingTel, (*i.e.*, they have no choice but to obtain their telecommunication services from SingTel). These users noted that, outside the CBD, SingTel is the *only* provider of LLCs. This is a particular concern for government End Users, which typically require telecommunication services at multiple locations outside the CBD. Moreover, business End Users observed that, even within the CBD, SingTel often is the *only* Licensee willing to serve small and medium-sized enterprises and business End Users located in shophouses or low-rise buildings.
 - (c) Some End Users agreed with the commenters that SingTel had a competitive advantage because it is the only operator that can meet their demand to obtain the full range of telecommunication services from a single operator. A number of End Users indicated the growing importance of having carrier diversity for ensuring service continuity.
 - (d) None of the End Users interviewed believes that SingTel's ownership of NCS provides SingTel with any competitive advantage.

Comments Regarding Market-Based Request

- 24 The commenters and interviewees raised a number of issues regarding the individual markets for which SingTel has sought an exemption.
- (a) *BLTS*. StarHub asserted that SingTel's share of the BLTS market is substantially above 90 percent, creating a very strong presumption of

dominance. APCC and StarHub also challenged SingTel's claim that Voice over Internet Protocol ("**VoIP**") services are a reasonable substitute for conventional BLTS such as business DEL and ISDN, given differences in line quality and access to emergency services. StarHub further suggested that if End Users regard VoIP as an effective substitute to fixed local telephony services, there would have been a significant reduction in the number of PSTN lines SingTel provides with the growth of VoIP - which has not occurred. Several End User interviewees commented that they sometimes use VoIP for international calls to reduce costs, but not as a substitute for conventional BLTS such as business DEL and ISDN, because of concerns about quality and reliability.

- (b) *LLC.* As noted above, both operators and End Users observed that SingTel remains the only Licensee that is able to provide nationwide LLC coverage. The only area in Singapore that is served by multiple LLC providers is the Central Business District ("**CBD**"). Even within the CBD, End Users observed that many buildings are served only by SingTel. In addition, APCC claimed that there remain significant barriers to entry into the LLC market. In particular, APCC noted that IDA's effort to promote wholesale LLC competition had not been effective because SingTel must only provide access to its tail circuits if a carrier interconnects at the local exchange, but need not provide access at its tandem switches. Therefore, to achieve nationwide access, a competitive carrier must build its network to reach each of SingTel's local exchanges, which would be very costly. Moreover, as APCC observed, SingTel has announced that it will close many of its local exchanges, but has not disclosed which ones, thereby reducing competitive Licensees' incentive to roll-out infrastructure to the exchanges. During the interviews, several operators noted that the deployment of the Next Gen NBN in the relatively near future also reduces their incentives to deploy infrastructure today. Some of the overseas operators also stated that their strategy is to provide international services by leveraging on the infrastructure of incumbents such as SingTel, and not to roll-out infrastructure in every country they operate in. Finally, APCC and StarHub disputed SingTel's claim that ADSL, wireless local loops and unbundled local loops are reasonable substitutes for SingTel's LLCs.
- (c) *Backhaul.* APCC, FT and StarHub urged IDA to continue to include self-supply Backhaul (*i.e.*, Backhaul capacity that a Licensee "provides to itself") when calculating market shares, as IDA did in the ICS Decision. Some commenters contended that SingTel has market power in the Backhaul market as a result of its control over LLCs and cable landing stations. At the same time, however, the interviews provided evidence that operators today frequently purchase Backhaul from carriers other than SingTel and terminate the Backhaul in carrier-neutral data centres such as Equinix, thereby eliminating the need to use SingTel's LLCs.

- (d) *IPLC*. FT, M1 and StarHub opposed granting SingTel an exemption in the IPLC market. The commenters asserted that SingTel retains the ability to leverage its control over LLCs, Backhaul and cable landing stations to obtain a competitive position in the downstream IPLC market. However, the End Users that IDA interviewed agreed that competition in the IPLC market has been increasing over the years and that, today, multiple IPLC providers are able to meet their needs at steadily declining prices. In fact, according to the interviewees, most large MNCs prefer buying IPLC services from operators with a global presence rather than SingTel.
- (e) *IMDS*. FT and StarHub claimed that SingTel is able to leverage its dominance over LLCs, which are a significant input, to obtain a competitive advantage in the market for IMDS. StarHub also noted that most IMDS customers are migrating to International IP-VPN, and that SingTel's share of this segment of the market has been increasing. However, none of the End Users interviewed suggested that, during the three years since IDA's Decision to exempt SingTel from *ex ante* regulation in this market, SingTel had engaged in any anti-competitive conduct.
- (f) *LMDS*. StarHub noted that SingTel's share of the LMDS market remains high, and claimed that SingTel is able to leverage its dominance in the LLC market to obtain a competitive advantage in this market. As in the LLC market, the End Users that IDA interviewed generally agreed that they are reliant on SingTel for LMDS, because SingTel is the only provider that is able to provide nationwide coverage for LMDS.

Comments Regarding the Customer Segment Request

- 25 Several commenters expressed concerns about SingTel's Customer Segment Request. In particular:
- (a) Several commenters argued that granting an exemption for services provided to business and government customers, who spend at least S\$250,000 per year for telecommunication services, would pose significant administrative complications, given that most of such customers do not make public their annual expenditure.
 - (b) APCC and BT contended that the choice of the S\$250,000 threshold is arbitrary. BT and FT also argued that the S\$250,000 threshold is low, and would remove regulations for services provided to most of their Singapore customers. End Users concurred that, if IDA were to grant SingTel's Customer Segment Request, services provided to a substantial segment of the business and government customers would no longer be subject to regulation.

PART VI: IDA'S ASSESSMENT FRAMEWORK

- 26 Under the Code, a Licensee that is classified as a Dominant Licensee must comply with provisions applicable to Dominant Licensees when it provides any telecommunication service pursuant to that licence. The Code recognises, however, that over time, as competition develops, a Dominant Licensee may become subject to competitive market forces in certain markets in which it participates and that, as a result, some regulations may no longer be necessary to deter the Dominant Licensee from acting anti-competitively. Sub-section 2.5.1 of the Code therefore provides for a process by which a Dominant Licensee may request an exemption from complying with some or all of the Dominant Licensee obligations for specific services or facilities.
- 27 The Exemption Guidelines set out the procedures and standards that IDA will generally apply when implementing Sub-section 2.5 of the Code. The guidelines also describe the procedures that Licensees and other parties should follow in order to comply with the requirements contained in the Code.
- 28 In considering SingTel's Request, IDA has applied the analytical framework set out in the Exemption Guidelines. The analytical framework seeks to apply economic analysis to determine whether, as a result of changing market conditions, continued application of the Dominant Licensee obligations to a Dominant Licensee's services is necessary. Consistent with the analytical framework set out in the Exemption Guidelines, IDA has determined the relevant service and geographical markets in which SingTel provides the services in SingTel's Request, and has conducted a competitiveness assessment including:
- (a) determining the market participants and their market shares;
 - (b) considering factors that would affect SingTel's ability to act anti-competitively; and
 - (c) considering evidence of actual market performance.
- 29 In determining the market share of SingTel and other market participants, IDA may look at revenues, capacity or any other relevant unit of measurement. Where reliable information is available, IDA will seek to use the unit of measurement that best reflects the characteristics of the market. For example, in markets for "upstream" services that could be used as an input for other services, and in which self-supply accounts for a significant portion of the market, capacity may be a more reliable measure than revenue because it is often not as relevant to assign revenue to self-supply inputs. In general, the inclusion of capacity that a Licensee provides to itself - which is a substitute for the capacity provided to third parties - is necessary to fully assess the ability of the Licensee to exercise market power. If such self-supply capacity were to be excluded, it could result in an under-estimation of a Licensee's competitive significance. By contrast, where a Licensee provides one service to itself, and a different service to other customers, IDA will not consider the two services to be in the same market.

PART VII: IDA'S ASSESSMENT

Applicable Legal Standard and Review Procedures

- 30 *Confidentiality of Information.* IDA notes the significant concerns that have been raised regarding the amount of information for which SingTel has sought confidential treatment.
- (a) In deciding whether to grant SingTel's request for confidential treatment of certain information in SingTel's Request, IDA applied the standards contained in the Code. Under the Code, a party submitting information to IDA may request that the information be treated as confidential. IDA will decide whether to grant the request based on whether the standards provided for under Sub-section 11.7.1 of the Code are met. Pursuant to the Code, IDA will grant the request if the requesting party is able to demonstrate with reasonable specificity that: (a) the information for which confidential treatment is sought is commercially sensitive (including information that is subject to a pre-existing non-disclosure agreement with a third party); or (b) the disclosure of the information would have a material adverse impact. IDA considers information to be commercially sensitive if: (a) it is not otherwise available to the public; or (b) there is a reasonable possibility that its disclosure would cause harm to the requesting party or otherwise provide a commercial benefit to the party's competitors.
 - (b) The information submitted by SingTel which IDA did not disclose in the First Public Consultation includes market share data for individual markets, details of competitive tenders lost by SingTel, and names and number of customers who migrated from SingTel to competitors in individual markets. In granting the request by SingTel for confidential treatment, IDA found that the information is commercially sensitive. IDA also notes that some of the data provided by SingTel was purchased from third-party sources, which did not permit SingTel to make the information public.
 - (c) More importantly, IDA does not agree that the commenters need to have access to this information to comment effectively on SingTel's Request. Because they are direct competitors of SingTel, the commenters are capable of providing their own independent assessment of the market. IDA notes that one of the commenters did in fact provide its own independent market assessment (including market share data) for IDA's use to verify SingTel's data. IDA is disappointed that only one commenter provided such market assessment.
- 31 *Exemption from ex post Dominant Licensee Obligations.* In response to the concerns raised by several commenters, IDA clarifies the standard that it uses to assess requests for exemption from *ex post* rules is contained in Section 8 of the Code, which provide a "competition law" remedy in the event that a Dominant Licensee abuses its dominant position in any telecommunication market.

- (a) As stated in the Exemption Guidelines, to the extent that SingTel “retains, or has any reasonable possibility of regaining, Significant Market Power in a market, or using its dominant position in another market to adversely affect competition in the relevant market, IDA generally will conclude that retaining these prohibitions is necessary to deter anti-competitive conduct and, where necessary, to take appropriate enforcement action ...”. In other words, IDA will only grant an exemption if the evidence demonstrates that SingTel no longer has the ability to engage in an abuse of dominance in a given market because it is no longer dominant in that market - and cannot leverage its market power in another market to distort competition in that market. Following such an exemption, IDA will treat SingTel in precisely the same way as any other licensee that participates in that market.
- (b) However, no exemption is permanent. Should market conditions change such that SingTel once again obtains significant market power in a relevant market, or obtains the ability to leverage significant market power from another market to distort competition in the relevant market, IDA will revoke the *ex post* exemption and will take appropriate action under Sub-section 8.2 should SingTel subsequently abuse its dominant position.

32 *IDA's Process for Reviewing SingTel's Exemption Requests.* As noted above, commenters urged IDA to conduct a detailed and independent analysis, and to allow the public an opportunity to comment on its Preliminary Decision. IDA has in fact used exactly the process that AT&T and FT proposed. As required by Sub-section 2.5.2 of the Code, IDA will “provide an opportunity for public comment *before* issuing a preliminary decision”, hence the First Public Consultation. As IDA explained in paragraph 3.5 of the First Public Consultation Paper, IDA will “issue a Preliminary Decision and seek further public comments on the Preliminary Decision, prior to issuing its final decision”. IDA had since collected data from market participants, performed an independent analysis, prepared a Preliminary Decision and will now provide an opportunity for further public comments. This is the same review process that IDA had used to consider SingTel's previous exemption requests⁶.

33 *Customer Segment Request.* Finally, IDA finds that, contrary to the argument made by some commenters, SingTel's Customer Segment request is a permissible request under the Code. IDA, therefore, has assessed SingTel's Request on the merits. The Exemption Guidelines provide guidance as to how a Dominant Licensee may present its request. In particular, Section 2.1(f) states that a “Dominant Licensee may submit a narrow Request.” By way of example, the Guidelines state that a Licensee can limit its request “to a particular class of Customers.” The only requirement is that “the Dominant Licensee must clearly identify the scope of the Request, and the basis on which the Dominant Licensee believes that application of the provision to that Customer class ... is no longer necessary.” SingTel has met this requirement.

⁶ SingTel had requested for exemption from Dominant Licensee obligations with respect to the provision of ICS and the retail International Telephone Services market.

Market 1: Business Local Telephony Services

Market Definition

- 34 The BLTS market consists of nationwide local fixed-line telephony services to business and government End Users, including ancillary services (e.g. voicemail, call waiting, call forwarding and equivalent services).
- 35 IDA agrees with SingTel's contention that its business Direct Exchange Line ("DEL"), ISDN, PhoneNet and i-PhoneNet services are all part of the BLTS market for two reasons.
- (a) First, there is some demand substitutability among the services, which provide nationwide local fixed-line telephony services to business and government End Users. For example, in response to increased costs for business DEL service, some business and government End Users would switch to a Centrex or PBX-based service. However, the degree of substitutability may depend on the size of the End User. For instance, larger End Users that subscribe to a Centrex or PBX-based service would be unlikely to switch to DEL in response to an increase in the price of PBX-based services. Likewise, for smaller enterprises, the cost of a PBX-based service may preclude switching, even if SingTel were to increase the charges for its DEL service.
 - (b) Second, these offerings are subject to the same market conditions. In particular, all the services are offered over the same basic infrastructure, which includes the "last mile" local loop. Therefore, as provided in IDA's Exemption Guidelines, the competitiveness of these offerings can be considered together.
- 36 IDA has considered the extent to which VoIP services should be included within the BLTS market.
- (a) IDA has previously recognised that "VoIP" is a *generic* term used to refer to a wide range of services that provide "*the transport of voice traffic using IP technology.*"⁷ Many forms of VoIP services plainly should not be considered to be part of the BLTS market. For example, many corporations today carry voice traffic over their IP-based global private networks. However, these business End Users generally do so only for calls between different corporate offices and, in some cases, for international calls. Thus, these applications are not substitutes for the local calling functionality provided by BLTS. If the price of BLTS were to rise, business and government End Users would not switch to such VoIP services. Similarly, VoIP services that transport traffic over the public Internet, such as services provided by Skype, are also not demand-side substitutes for BLTS. Such VoIP services do not provide the basic functionality, service quality, emergency access features and reliability that business and government End Users typically require, and have not yet been widely adopted by business and government

⁷ IDA's Explanatory Memorandum on the policy framework for IP telephony and electronic numbering in Singapore, paragraph 7. Available on the IDA website at www.ida.gov.sg.

End Users. There is no evidence that the existence of these VoIP services constrains SingTel's ability to raise the price of its BLTS.

- (b) However, one form of VoIP services, "IP Telephony services" is part of the BLTS market. In IDA's policy framework for IP telephony and electronic numbering in Singapore, IDA defined "IP Telephony services" as a form of VoIP that requires telephone or E.164 numbers⁸, which allow a user to make and receive voice, data and video calls in any domestic or overseas location where broadband Internet access is available. Applying this definition of "IP Telephony services", IDA agrees with SingTel that its i-PhoneNet service should be included in the BLTS market. Like SingTel's other BLTS, this service provides fixed local telephony, delivered over leased lines or copper infrastructure. The only difference is that SingTel converts the traffic into IP protocol for transmission within its network, a process that is transparent to End Users.

37 The geographic market in which SingTel offers BLTS is national. Business and government End Users in Singapore who require BLTS must purchase it from a BLTS provider within Singapore.

38 SingTel sought exemption only for its retail BLTS. While SingTel offers a small amount of BLTS on a wholesale basis, there is no evidence that SingTel provides different functions for its retail and wholesale BLTS, or prices its BLTS at different levels for retail and wholesale customers. Therefore, retail and wholesale BLTS could appropriately be considered together for this proceeding. Doing so, however, would not have any impact on IDA's assessment of this market, given the small amount of BLTS that SingTel sells on a wholesale basis.

Competitiveness Assessment

39 SingTel continues to have significant market power in the BLTS market.

40 SingTel's market share (based on revenue) is in excess of 90 percent. In the face of such a high market share, IDA would require compelling evidence to conclude that SingTel is subject to effective competition. Based on its review, however, IDA does not find *any* evidence that demonstrates that the retail BLTS market is competitive.

41 While there are a few other participants in the BLTS market, their share of the market is insignificant. Contrary to SingTel's assertion, barriers to entry into the BLTS market – which could include significant infrastructure investments as well as marketing and customer support - are high. The interviews also showed that business and government End Users are generally not willing to switch providers for their business DEL and ISDN, given the high costs involved. While SingTel's business DEL prices are competitive with those in other jurisdictions, this is the result of IDA's regulatory oversight, not competitive market forces.

⁸ An ITU-T standard network addressing format for telephone numbers. E.164 addresses are 15 decimal digits long and include a country code, area or city code, and a local number.

- 42 Given the above findings, IDA has determined that SingTel continues to possess significant market power and, therefore, that continued application of Dominant Licensee regulation to services provided in the BLTS market remains necessary to protect End Users, and promote and preserve competition.
- 43 SingTel had also requested that, if IDA does not grant an exemption for all of SingTel's retail BLTS offerings, IDA exempt its retail BLTS product offerings other than business DEL service. SingTel explained that its business DEL is its basic telephone service, and the only BLTS that SingTel is required to provide pursuant to its licence. With the continued application of Dominant Licensee obligations to its business DEL, SingTel submits that it is unnecessary to continue imposing Dominant Licensee obligations on the other BLTS product offerings. IDA does not agree. As noted above, all of SingTel's BLTS offerings are subject to similar market conditions. SingTel's market share for non-DEL BLTS is in excess of 90 percent. As these services are offered over the same "last mile" local loop, barriers to entry are high. Thus, even if IDA were to consider SingTel's DEL and non-DEL BLTS separately, IDA would reach the same conclusion, i.e. given the absence of effective competition, continued application of Dominant Licensee regulation to these services remains necessary.

Market 2: Local Leased Circuits

Market Definition

- 44 The LLC market consists of services that offer a dedicated telecommunication link between two premises for customers' exclusive use. IDA does not agree with SingTel's contention that there are numerous demand substitutes for LLCs.
- 45 Contrary to SingTel's suggestion, LMDS are not substitutes for LLCs. As IDA previously recognised, LMDS do not offer the "*superior quality features of both reliability and versatility, as is the case for LLCs.*"⁹
- 46 Similarly, IDA does not agree that other technologies – such as xDSL, wireless local loop, wavelength division multiplexing, cable modem, free space optics, microwave links, Universal Mobile Telecommunications System and General Packet Radio Service – should be considered to be in the same market as LLCs. Again, IDA sees no reason to depart from its previous decision that these connectivity services are not demand-side substitutes because they lack LLCs' reliability and versatility.¹⁰ Neither do these services represent potential supply-side substitutes, because in many cases, they use entirely different facilities than the ones used to provide LLCs, thereby precluding redeployment of these facilities to provide LLCs.
- 47 In conducting its analysis, IDA has considered whether to define two separate geographic markets: one in the Central Business District ("**CBD**") and a

⁹ IDA's Explanatory Memorandum on designation of SingTel's LLCs as a mandated wholesale service, Paragraph 6.

¹⁰ See note 9.

second in the Non-CBD areas. The evidence gathered in this proceeding indicates that there are some competitive differences between the CBD and Non-CBD areas. While some LLC End Users in the CBD have a choice of more than one operator, End Users outside the CBD must rely almost exclusively on SingTel for LLCs. However, even within the CBD, SingTel's market share remains very high.¹¹ Indeed, as noted above, many End Users located in the CBD – such as small businesses and those located in shophouses and low-rise buildings – still must rely exclusively on SingTel for LLCs. Consequently, IDA's assessment as to whether SingTel has significant market power in the LLC market would be the same regardless of whether IDA defines one nationwide market or two smaller geographic markets. Therefore, for purpose of this proceeding, IDA has treated the LLC market as a single national market.¹² This, however, does not preclude IDA from defining two geographic markets - CBD and Non-CBD - in future reviews, should market conditions change.

- 48 IDA previously defined two functional markets: (a) a retail LLC market consisting of LLC services sold to business End Users; and (b) a wholesale LLC market consisting of LLC services sold to other telecommunication operators for the supply of telecommunication services.¹³ IDA sees no reason to alter this market definition. In the present proceeding, however, SingTel seeks an exemption only for the retail LLC market. IDA's competitive assessment, therefore, addresses only the retail LLC market.

Competitiveness Assessment

- 49 SingTel continues to have significant market power in the retail LLC market.
- 50 As an initial matter, SingTel's share of the nationwide retail LLC market, based on capacity and revenue, is substantially in excess of 50 percent, thereby creating a strong presumption of dominance.
- 51 For most End Users that require LLCs outside the CBD or nationwide coverage, SingTel is the only provider of LLCs. To be sure, a small number of large MNCs located in the CBD, which typically buy several million dollars worth of telecommunication services each year, do have a choice of LLC providers. However, these users represent a very small segment of the market. For most End Users that require LLCs outside the CBD, SingTel is the only provider.
- 52 StarHub is the only other major participant in the LLC market, but is a very distant second to SingTel in relation to revenue and reach. Moreover, in many cases, SingTel and StarHub do not compete directly. Rather, a growing number of End Users, who are concerned about service reliability, choose to

¹¹ Indeed, even if all of the LLCs sold by other operators were assumed to be sales in the CBD, SingTel's share of the "CBD market" would still be quite high.

¹² Exemption Guidelines Paragraph 2.4.1(e): *"In some cases, IDA may conclude that, even though different product offerings may theoretically be in different markets, it is appropriate to assess the need for continued regulation of these product offerings together because they are subject to similar market conditions."*

¹³ IDA's Explanatory Memorandum on designation of SingTel's LLCs as a mandated wholesale service, Paragraph 5.

divide their LLC purchases between two operators - a practice known as carrier diversity. Thus, a portion of StarHub's market share reflects situations in which an End User routes most of its traffic over SingTel's LLCs, while sending the remaining traffic over StarHub's LLCs.

- 53 There is no evidence that operators are seeking to compete with SingTel in the retail LLC market by purchasing wholesale LLCs and reselling them to End Users. Operators who purchase LLCs from SingTel typically do so for purposes of provisioning other services such as IPLC and IMDS, rather than to compete with SingTel in the retail LLC market.
- 54 Several additional factors strengthen IDA's conclusion that SingTel has significant market power in the retail LLC market.
- 55 Contrary to SingTel's contention, barriers to entry remain high. Even in a small, densely populated country such as Singapore, the cost to roll-out a ubiquitous "last mile" access to End Users (*i.e.*, tail LLCs) remains significant. Indeed, the Singapore Government's decision to subsidise construction of the Next Gen NBN suggests that costs may be so great that Government subsidies are needed for a ubiquitous greenfield deployment of domestic connectivity.
- 56 IDA's effort to foster retail LLC competition has not yet proven effective. IDA previously designated SingTel's tail LLCs as an Interconnection Related Service, which SingTel must provide at cost-based prices under its Reference Interconnection Offer ("**RIO**"). However, to date, no operator has built-out its infrastructure to SingTel's exchanges and interconnected with SingTel's tail LLCs. IDA does not anticipate that operators are likely to do so in the near future. First, as noted above, SingTel has decided to close a number of its exchanges, but has not disclosed its plans on which exchanges are to be closed. Although IDA has required SingTel to provide an 18-month lead time before closing any exchanges, the uncertainty has apparently dampened other operators' plans to roll-out infrastructure to SingTel's exchanges. Second, operators are adopting a "wait-and-see" view of infrastructure deployment, given the Government's recent decision to help fund deployment of a nationwide Next Gen NBN. Third, a number of global operators that IDA interviewed state that their business strategy is to rely on the incumbents' infrastructure in overseas countries, including Singapore, to provide international services, rather than to roll-out their own infrastructure in those locations.
- 57 Finally, SingTel's own pricing structure has deterred the growth of retail LLC competition. SingTel sets the price of both retail and wholesale LLCs based on volume purchased. Consequently, SingTel may provide End Users that purchase large quantities of LLCs with larger discounts than those SingTel provides to a competing operator that purchases smaller volumes of LLCs. Where this occurs, the competing operator is unable to use SingTel's wholesale product to offer a competitively priced retail LLC service.
- 58 While SingTel's list prices for its retail LLCs have fallen by approximately 25 percent compared to three years ago, the most significant price reductions occurred over the last one year. Other than this, the list prices have remained

largely unchanged over the years. SingTel's transacted prices (*i.e.*, the actual prices charged to End Users) do not appear to have fallen significantly, based on interviews with End Users. While competitors' prices have fallen in some cases, the prices of their LLCs do not pose a competitive constraint on SingTel's pricing. Further, operators and End Users stated that the cost of obtaining LLCs in Singapore remains high by international standards. Indeed, data provided by operators indicate that the cost of an LLC in Singapore constitutes a higher proportion of the cost of an IPLC than the cost of an LLC in other jurisdictions, such as Hong Kong and Japan.

- 59 Given the above findings, IDA has determined that SingTel continues to possess significant market power in the retail LLC market and, therefore, continued application of Dominant Licensee regulation to services provided in this market is necessary to protect End Users, and to promote and preserve competition.

Market 3: Backhaul

Market Definition

- 60 IDA concluded in the ICS Decision¹⁴ that:

*"The Backhaul market consists of services that use fibre optic links to enable a Licensee that has capacity on an international submarine cable system to transport that capacity from a cable landing station in Singapore to the Licensee's international gateway or point-of-presence ("POP") in Singapore. The Backhaul market includes both self-provided backhaul (*i.e.*, the provision of backhaul, by a Licensee, to itself) and third-party backhaul (*i.e.*, the provision of wholesale backhaul, by a Licensee, to another Licensee).*

The geographic market in which SingTel offers backhaul is national. Customers in Singapore that require backhaul service must purchase it from a backhaul provider within Singapore.

Backhaul is provided exclusively on a wholesale basis. The only customers requiring backhaul are facilities-based operators ("FBOs") seeking to access capacity on international submarine cables."

IDA sees no reason to depart from these conclusions for this proceeding.

- 61 In SingTel's Request, SingTel does not object to IDA's market definition, but renews its objection to the inclusion of self-provided Backhaul, on the grounds that it is not "*within the relevant field of rivalry*" between SingTel and its competitors.¹⁵ IDA does not find SingTel's argument to be persuasive. As IDA previously stated, both self-provided and third-party Backhaul "*are in the same market because self-providing backhaul is a substitute for purchasing backhaul from another carrier.*"¹⁶

¹⁴ IDA's Explanatory Memorandum on the ICS Decision, Paragraphs 49-52.

¹⁵ SingTel's Request, Paragraph 6.2.1.8.

¹⁶ IDA's Explanatory Memorandum on the ICS Decision, Paragraph 50.

Competitiveness Assessment

- 62 The evidence gathered in this proceeding demonstrates that the market for Backhaul is now competitive.
- 63 SingTel's market share (based on capacity) has fallen below 40 percent. Moreover, in the three years since the ICS Decision, SingTel's list prices for Backhaul have fallen by as much as 20 percent. Today, SingTel is subject to competition from a number of providers in the Backhaul market, including FT, Pacnet Cable (S) Pte Ltd (formerly known as C2C Singapore Pte Ltd), Pacnet Global (S) Pte Ltd (formerly known as Asia NetCom Singapore Pte Ltd), Reach International Telecom (S) Pte Ltd and StarHub. Operators that IDA interviewed generally agreed that IDA's Cable Landing Decision in 2004 has lowered the barriers to entry, and has enabled them to compete more effectively in the Backhaul market.
- 64 IDA's review also found evidence suggesting that business End Users are increasingly co-locating at third-party data centres, such as Global Switch and Equinix, which are served by multiple Backhaul providers. Thus, Backhaul capacity is increasingly being terminated at a shared data centre, rather than at the premises of an FBO. This increases competitiveness in the Backhaul market in two ways. First, because a data centre provides a large concentration of potential customers, the same infrastructure can be used to serve multiple customers, thereby reducing costs and fostering new entry. Second, customers can switch between cables (and, indeed, between cable landing stations) at the data centres without SingTel's involvement, thereby reducing SingTel's ability to use its control of the cable landing stations to impede competition.
- 65 IDA therefore concludes that continued application of the *ex ante* Dominant Licensee regulations to services provided by SingTel in this market is no longer necessary, in view of the competitive market environment.
- 66 At the same time, however, in order to serve End Users who are not in data centres, Backhaul must be combined with LLCs in a retail service offering. Thus, IDA remains concerned about SingTel's ability to leverage its dominance in the LLC market to adversely affect competition in the Backhaul market. IDA therefore concludes that it is necessary to retain *ex post* regulation under Sub-section 8.2 of the Code as a competitive safeguard. Retaining Sub-section 8.2 will impose no regulatory obligations on SingTel. Indeed, it will have no impact whatsoever if SingTel does not engage in anti-competitive conduct.

Market 4: Terrestrial International Private Leased Circuit

Market Definition

- 67 In the ICS Decision¹⁷, IDA stated that the "*Terrestrial IPLC market consists of services, provided over submarine cables, that offer customers the exclusive use of a point-to-point, dedicated transparent transmission path for voice, data*

¹⁷ Explanatory Memorandum on ICS Decision, Paragraphs 53 - 60.

or video between a location in Singapore and a location outside of Singapore.” IDA further determined that, the “geographic market in which SingTel offers Terrestrial IPLC services is national. It consists of all Terrestrial IPLCs purchased in Singapore (so-called “A-end” sales).” IDA noted that “Terrestrial IPLCs may be provided on a wholesale or retail basis”, but concluded that “both services are subject to similar competitive conditions” and, therefore, should be assessed together. No party has suggested any reason for IDA to depart from this approach. IDA, therefore, will retain this definition.

Competitiveness Assessment

- 68 In the three years since the ICS Decision, competition has continued to develop in the Terrestrial IPLC market.
- 69 As discussed above, the removal of restrictions on competitive provision of Backhaul has fostered the development of a competitive Backhaul market. StarHub and Pacnet Global (S) Pte Ltd have become strong competitors to SingTel in the Terrestrial IPLC market, and several other operators also participate in this market. Although SingTel's market share (based on capacity) remains slightly above the level at which IDA presumes dominance, it fell nearly ten percent between 2006 and 2007. Several business and government End Users that IDA interviewed shared that there are multiple operators to choose from to meet their Terrestrial IPLC needs. Indeed several MNCs interviewed stated that they did not even consider SingTel because they prefer an operator that has a global presence. In recent years, moreover, list prices for Terrestrial IPLCs on some key routes have decreased by approximately 90 percent. There is also significant variation between the prices offered by operators in the Terrestrial IPLC market, which is a hallmark of a competitive market.
- 70 In these circumstances, IDA concludes that continued application of the *ex ante* Dominant Licensee regulations to services provided by SingTel in this market is no longer necessary. However, because SingTel retains the ability to leverage its dominance in the LLC market to adversely affect competition in the market for Terrestrial IPLCs, retention of *ex post* regulation remains appropriate.

Market 5: International Managed Data Services

Market Definition

- 71 In the ICS Decision¹⁸, IDA concluded that “*The IMDS market consists of packet-based services . . . that provide managed connectivity among multiple customer sites, at least one of which is located outside of Singapore. These services allow for data to be prioritised, in order to ensure that more time-sensitive data is delivered more rapidly.*” IDA further concluded that “*The geographic market for IMDS is national; it consists of all sales of IMDS made within Singapore.*” Finally, IDA stated that “*IMDS are typically provided on a retail basis*” but that, if such services were to be offered on a wholesale basis,

¹⁸ Explanatory Memorandum on ICS Decision, Paragraphs 61 – 63.

there was no reason to anticipate that “*the wholesale service would differ from the retail service in price or non-price aspects*” and therefore that both retail and wholesale IMDS should be assessed “*as a single market*”. No party has suggested any reason for IDA to depart from this approach.

- 72 Since the adoption of the ICS Decision, a small amount of IMDS – currently less than five percent of the total, as measured by revenue – has been offered on a wholesale basis. As IDA anticipated, such services are offered on comparable prices, terms and conditions as retail IMDS. IDA, therefore, concludes that retail and wholesale IMDS form a single market in this proceeding.
- 73 At the time of the ICS Decision, SingTel offered three types of IMDS: International Frame Relay, International ATM and International IP-VPN. IDA subsequently granted SingTel's request to add International Ethernet to the list of services considered to be within the IMDS market. When SingTel filed the current exemption request, therefore, it listed two International Ethernet services – ConnectPlus Ethernet-VPN and ConnectPlus Ethernet-Line – as part of the IMDS market for which it seeks a further exemption from *ex post* regulation.

Competitiveness Assessment

- 74 In the ICS Decision, IDA concluded that “*the market for IMDS is competitive. . . SingTel . . . is subject to competition from a number of providers – including AT&T, BT, Cable & Wireless, Equant, MCI, Infonet, Sprint and StarHub. Based on A-end revenues, SingTel's estimated share of the market is around 35 percent. While SingTel's share in the legacy International ATM service is somewhat higher, its share of the growing International IP-VPN service is significantly lower.*” IDA, therefore, granted SingTel an exemption from the application of *ex ante* regulation for the IMDS market. At the same time, IDA recognised that “*IMDS providers, like IPLC providers, typically use SingTel's LLCs to provide service to end users [Therefore] SingTel retains the potential to use its dominant position in the LLC market to adversely affect competition in the IMDS market.*” IDA therefore declined to exempt SingTel from the application of *ex post* regulation to this market. As IDA explained, “*Retaining Sub-section 8.2 will impose no regulatory obligations on SingTel. Indeed, it will have no impact whatsoever if SingTel does not engage in anti-competitive conduct.*”¹⁹
- 75 In its current request for exemption, SingTel renews its request that IDA exempt it from remaining *ex post* regulation in the IMDS market. IDA declines to do so.
- 76 IDA recognises that, during the last three years, competition has grown even stronger in the IMDS market. Today, three operators have larger market shares than SingTel, whose market share continues to fall. During this time, consumers have gradually shifted away from the traditional IMDS – International Frame Relay and International ATM – towards International IP-VPN and, more recently, towards International Ethernet. As End Users shift

¹⁹ Explanatory Memorandum on ICS Decision, Paragraphs 100 - 106.

from the more traditional IMDS, they are clearly taking the opportunity to consider other providers - SingTel today has a very low share of International IP-VPN, which is the largest IMDS by revenue. As in the Terrestrial IPLC market, business and government End Users that IDA interviewed commented that they were able to purchase IMDS from multiple operators at competitive prices.

- 77 The continued growth of competition, however, does not change the fundamental reality: SingTel continues to have significant market power in the LLC market and retains the potential to leverage that dominance to adversely affect competition in the IMDS market. This fact precludes granting SingTel an exemption from *ex post* regulation in the IMDS market. As IDA explained in the Exemption Guidelines, IDA will not exempt a Dominant Licensee from *ex post* regulations where there is “*any reasonable possibility*” that the Dominant Licensee will use “*its dominant position in another market to adversely affect competition in the relevant market*”.
- 78 In addition, because the International Ethernet segment of the IMDS market is still developing, and because the number of market participants remains small, IDA cannot foreclose the possibility that SingTel might develop a degree of market power in the IMDS market. In this circumstance, the prudent course is to retain *ex post* regulatory safeguards. As IDA explained in the Exemption Guidelines, IDA will not exempt a Dominant Licensee from *ex post* regulations where there is “*any reasonable possibility*” that the “*Dominant Licensee retains, or has any reasonable possibility of regaining, Significant Market Power in a market...*”.

MARKET 6: LOCAL MANAGED DATA SERVICES

Market Definition

- 79 In defining the market for LMDS, IDA is guided by the service market definition that it has adopted for IMDS. Thus, IDA concludes that the LMDS market consists of packet-based services – such as Local Frame Relay, Local ATM, Local IP-VPN and Local Metro-Ethernet – that provide managed connectivity among multiple customer sites, all of which are located within Singapore.²⁰
- 80 The geographic market for LMDS is national. Customers in Singapore that require LMDS must purchase it from a LMDS provider within Singapore.
- 81 While LMDS is generally provided on a retail basis, the service is also sold to wholesale customers. However, given that there is no difference in pricing or

²⁰ During the interviews, some operators and End Users stated that they consider certain Local Metro-Ethernet services to be substitutes for LLCs. Other interviewees, however, agreed with SingTel that Local Metro-Ethernet is a substitute for the other LMDS. In the absence of conclusive evidence, IDA will accept SingTel's position. Because IDA is denying SingTel's request for exemption in both the LLC and LMDS markets, this decision to consider Local Metro-Ethernet under the LMDS market will not have any substantive impact on the level of regulation to which SingTel is subject. That said, IDA reserves the right in the future to review whether any Local Metro-Ethernet services are substitutes for, and thus in the same market as, LLCs.

any other aspect of sales between wholesale and retail customers, IDA concludes that wholesale and retail LMDS constitute a single market.

Competitiveness Assessment

- 82 SingTel has significant market power in the LMDS market.
- 83 SingTel's share of the LMDS market is above 70 percent by revenue, which is well above the 40 percent level at which IDA makes an initial presumption that a Licensee has significant market power. SingTel's only competitors are StarHub and Pacnet Internet (S) Ltd. Even then, their respective share of the LMDS market is significantly lower than SingTel's.
- 84 SingTel's dominant market position appears to reflect its ability to leverage its control over LLCs into the LMDS market to a far greater extent than in the IMDS market. This is because, in the IMDS market, the cost of local connectivity within Singapore is a relatively small portion of the total cost – which typically includes international connectivity between Singapore and multiple foreign jurisdictions, and local connectivity in each of those jurisdictions, along with data management services. In the LMDS market, by contrast, local connectivity within Singapore reflects a very significant portion of the cost of the total service. Moreover, business and government End Users state that they must rely primarily on SingTel if they require LMDS coverage for multiple customer sites in Singapore.
- 85 Given the above findings, IDA has determined that continued application of Dominant Licensee regulation to services provided by SingTel in the LMDS market is still necessary to promote and preserve competition in the market.

CUSTOMER SEGMENT REQUEST

- 86 As noted above, SingTel has also requested an exemption for all retail telecommunication services provided to customers in the business and government customer segment with an annual spend on telecommunication services of at least S\$250,000. IDA has considered this request on the merits, but has determined that it should be denied.
- 87 IDA does not believe that SingTel has demonstrated that continued application of Dominant Licensee obligations to telecommunication services that it provides to business and government customers with an annual spend of at least S\$250,000 is no longer necessary “to protect End Users or to promote and preserve effective competition amongst Licensees”, as required in Sub-section 2.5.1 of the Code. SingTel contends that services provided to customers that fall within this customer segment should no longer be subject to dominance regulation, because the provision of telecommunication services (including BLTS, LLCs, IMDS, LMDS and Terrestrial IPLCs) to such customers is extremely competitive. SingTel claimed that such customers are typically telecommunication savvy and sophisticated buyers, who purchase telecommunication services through competitive tender processes. SingTel also contended that the characteristics of this customer segment provide a strong incentive for infrastructure-based competitors to invest in infrastructure

to provide services to business and government customers. SingTel's argument has two significant flaws.

- (a) First, SingTel disregards the fact that many business and government customers (including those who have an annual telecommunication spend of at least S\$250,000) have no alternative but to purchase LLCs from SingTel, especially in non-CBD areas. Based on IDA's interviews, virtually every customer that falls under SingTel's proposed Customer Segment Request requires LLCs – either to connect multiple sites within Singapore, to access IPLC, or to use as a “platform” for managed data services. As IDA has concluded, the LLC market is not competitive. While some customers located within the CBD have a choice among a few LLC providers, outside the CBD – where most government customers and many business customers are located – SingTel is typically the *only* provider of LLCs. Indeed, even within the CBD, many customers have no competitive alternative to SingTel's LLCs. If a customer does not have access to more than one LLC provider, it has no ability to constrain SingTel's market power in the market for LLCs and for services for which LLCs are a significant input.
- (b) Second, the S\$250,000 annual telecommunication threshold would include medium-sized enterprises that do not possess countervailing buying power that can check any anti-competitive conduct. IDA recognises that some of the largest business customers, such as the large MNCs with multi-million dollar telecommunication spend, may be able to obtain telecommunication services that are priced competitively through tenders. SingTel's Customer Segment Request, however, would not be limited to such large MNCs. Rather, the customer segment proposed by SingTel would include medium-sized enterprises, which may lack the expertise and buying power of the largest MNCs. Given the characteristics of such medium-sized enterprises, IDA concludes that continued application of Dominant Licensee regulation is necessary to protect these customers, and to promote and preserve effective competition among Licensees.

88 Finally, grant of the Customer Segment Request would present significant administrative challenges. SingTel's request is based on a customer's total telecommunication spend for services purchased in Singapore – not the amount a customer spends on telecommunication services purchased only from SingTel. Thus, if IDA were to grant SingTel's request, IDA would need to develop a procedure to identify all customers that fall within the threshold of S\$250,000 annual telecommunication spend. SingTel has suggested a number of means of calculating a customer's annual spend. Where the End User is a SingTel customer, SingTel proposed that the End User must have spent at least S\$250,000 with SingTel. Where the End User is not an existing SingTel customer, the End User would need to demonstrate or declare that it has an annual spend of at least S\$250,000 with another operator. SingTel offered to provide IDA, every six months, with a list of business or government customers that it considers as falling within the customer class to which the exemption applies. IDA has serious doubts on the practicality or feasibility of the above approach. First, relying on the customer to show proof or declare

that it has an annual spend of at least S\$250,000 is problematic. Some customers are reluctant to disclose the amounts of their telecommunication spend, and they would not have incentive to disclose such amounts accurately. Second, further complications could result from customers whose level of spending fluctuates from year-to-year. Policing this regime clearly would entail significant administrative resources.

PART VIII: IDA'S PRELIMINARY DECISION

89 Based on the findings explained above, IDA arrived at the following Preliminary Decision.

Market-Based Request

90 IDA will grant SingTel's request to be exempted from the application of Sub-sections 4.2.1.1 to 4.2.1.3, 4.3, 4.4.1, 4.4.2.1, 4.5 and 4.6 of the Code to SingTel's provision of Backhaul and IPLC services, as well as Sub-sections 4.2.2.1 to 4.2.2.3 of the Code to SingTel's provision of IPLC services.

91 IDA will retain the exemption previously granted in the ICS Decision with respect to SingTel's provision of IMDS, *i.e.*, exemption from the application of Sub-sections 4.2.1.1 to 4.2.1.3, 4.2.2.1 to 4.2.2.3, and 4.3 to 4.6 of the Code.

92 IDA will deny SingTel's request to be exempted from the application of Sub-sections 4.2.1.1 to 4.2.1.3, 4.2.2.1 to 4.2.2.3, 4.4.1, 4.4.2.1, 4.5 and 4.6 of the Code to SingTel's provision of BLTS, LLC and LMDS services.

93 IDA will deny SingTel's request to be exempted from the application of Sub-sections 8.2.1.1 to 8.2.1.3, 8.2.2.1 and 8.2.2.2 of the Code to SingTel's provision of BLTS, LLC, Backhaul, IPLC, IMDS and LMDS services.

Customer Segment Request

94 IDA will deny SingTel's Customer Segment Request in its entirety.

95 Taken together, **Table 2** summarises IDA's Preliminary Decision.

Table 2: Summary of IDA's Preliminary Decision

Market	Exemption from Dominant Licensee Obligations under the Code	
	Section Four – Duty of Dominant Licensees	Section Eight – Abuse of Dominant Position
BLTS	Deny	Deny
LLC	Deny	Deny
Backhaul	Grant	Deny
Terrestrial IPLC	Grant	Deny
IMDS	Previously Granted	Deny

	Exemption from Dominant Licensee Obligations under the Code	
Market	Section Four – Duty of Dominant Licensees	Section Eight – Abuse of Dominant Position
LMDS	Deny	Deny
Customer Segment Request	Deny	Deny

Implementation Procedures of IDA's Final Decision

- 96 Following this Second Public Consultation, IDA will issue a Final Decision, taking into account the comments received from this consultation. IDA will adopt the following procedures regarding implementation of its Final Decision.
- 97 The Final Decision will become effective upon publication in the Gazette. IDA intends to publish the Gazette within 14 days from the date of its Final Decision.
- 98 The Final Decision will remain in effect permanently, unless IDA determines that re-imposition of any requirement is necessary to protect End Users or promote and preserve competition amongst Licensees.
- 99 The Final Decision will apply to any new telecommunication service or product offering that SingTel may, in future, offer that is in the same market for which IDA has granted an exemption. However, SingTel must obtain IDA's prior written approval that the new telecommunication service or product offering is within the same market for which IDA has granted the relevant exemption. To do so, SingTel must submit a detailed description of the new telecommunication service or product offering – including pricing, functionality and expected customer base. IDA will make the final determination as to whether the new telecommunication service or product offering falls within a market for which IDA has granted the relevant exemption. IDA will find that the new telecommunication service or product offering is in the same market if the evidence demonstrates that the new service or product offering is a reasonable substitute for any existing service or product offering in that market.
- 100 In the event IDA imposes any additional provisions applicable to Dominant Licensees, IDA will determine, at that time, whether SingTel should be exempted from the application of that provision to the telecommunication services or product offerings in the markets in which IDA has granted SingTel an exemption.

PART IX: PUBLIC CONSULTATION ON IDA'S PRELIMINARY DECISION

- 101 Pursuant to Sub-section 2.5.2 of the Code, IDA hereby invites interested parties to submit comments regarding IDA's analysis in the Preliminary Decision ("**Second Public Consultation**").

- 102 Parties who submit comments should organise their submissions as follows: (a) cover page (including the information specified in the following paragraph); (b) table of contents; (c) summary of major points; (d) statement of interest; (e) comments; and (f) conclusion. Supporting material may be placed in an annex. All submissions should be clearly and concisely written, and should provide a reasoned explanation for any proposed revisions to the Preliminary Decision. To the extent feasible, parties should make clear the specific markets and requirements that they are addressing. The parties should not repeat the comments submitted during the First Public Consultation. If a party believes that IDA should alter any aspect of its Preliminary Decision, the party should explain with specificity why it believes IDA's proposed decision is not correct and should indicate how it believes IDA should amend or modify its decision. Alternatives may include imposition of conditions.
- 103 Commenting parties should include their personal/company particulars, as well as the correspondence address, contact number and email address on the cover page of their submissions. All comments should be addressed to:

Mr Andrew Haire
Deputy Director-General (Telecoms & Post)
Infocommunications Development Authority of Singapore
8 Temasek Boulevard
#14-00 Suntec Tower Three
Singapore 038955

Commenting parties are required to submit the softcopy of their submissions (preferably in Microsoft Word format) via e-mail to: IDA_Consultation@ida.gov.sg Parties may also submit a hardcopy to fax number: **(65) 6211-2116**.

- 104 IDA reserves the right to make public all or parts of any written submissions and to disclose the identity of the source. Commenting parties may request confidential treatment for any part of the submission that the commenting party believes to be proprietary, confidential or commercially sensitive. Any such information should be clearly marked and placed in a separate annex. If IDA grants confidential treatment, it will consider but will not publicly disclose the information. If IDA rejects the request for confidential treatment, it will return the information to the party that submitted it and will not consider this information as part of its review. As far as possible, parties should limit any request for confidential treatment of information submitted. IDA will not accept any submission that requests confidential treatment of all, or a substantial part, of the submission.
- 105 IDA reserves the right to modify any aspect of this Preliminary Decision based on the comments received during the Second Public Consultation.
- 106 All submissions must reach IDA **before 12 noon on 23 September 2008**.

ANNEX A**GLOSSARY**

The general descriptions below are provided as a reference and may not be exhaustive.

(a) Terrestrial International Private Leased Circuit (IPLC)	A terrestrial IPLC is a point-to-point dedicated private line via submarine cable systems used by an organisation to communicate between offices that are geographically dispersed throughout the world. An IPLC can be used for Internet carriage, business data exchange, video conferencing and any other form of telecommunication.
(b) Local Leased Circuit (LLC)	A LLC is the domestic version of an IPLC. It is a point-to-point dedicated private line used to connect domestic offices to each other, and to a carrier's point of presence (POP) for international services. A LLC can be used for Internet carriage, business data exchange, video conferencing and any other form of telecommunication.
(c) Frame Relay	Frame Relay is a managed network connectivity service, using packet-switching technology, designed for cost-efficient data transmission for intermittent traffic between local area networks (LANs), and between many end-points in a wide area network (WAN). Frame Relay complements and provides a mid-range service between ISDN (which offers bandwidth at 128 kbps) and Asynchronous Transfer Mode (ATM) (which operates in somewhat similar fashion to Frame Relay but has higher speeds from 1 Mbps or 622 Mbps).
(d) Asynchronous Transfer Mode (ATM)	ATM is a managed network connectivity service, using packet-switching technology, that has high speed transportation capability (1 Mbps and above), network manageability and network accountability. It is able to meet point-to-point, point to multipoint as well as multipoint-to-multipoint connectivity needs. ATM is suited to handle real-time traffic, as well as bursty applications. With the ability to define jitter, delay, cell/packet loss ceilings, bandwidth on an application, ATM technology is able to deliver quality of service by allocating resources to traffic that has the highest priority.
(e) Ethernet	Ethernet is a managed network connectivity service, based on the Ethernet standard used for local area networks (LANs) but covering a city or even an international footprint. It can be provided over different service delivery technologies (such as MPLS), and provides benefits to End Users in terms of scalability and flexibility.

<p>(f) Internet Protocol Virtual Private Network (IP-VPN)</p>	<p>A virtual private network (VPN) via Internet Protocol (IP) is a managed network connectivity service to provide remote offices or individual users with secure access to their organisation's network. It is used to meet enterprise networking requirements such as Intranet, business-to-business Extranet and remote access. A VPN can be contrasted with an expensive system of owned or leased lines that can only be used by one organisation. The goal of a VPN is to provide the organisation with the same capabilities, but at a much lower cost.</p> <p>A VPN works by using the shared public infrastructure while maintaining privacy through security procedures and tunnelling protocols. IP is the method or protocol by which data is sent from one computer to another on the Internet. IP-VPN is therefore an Internet Protocol based VPN, which harnesses the strength and reach of IP networks.</p>
<p>(g) Backhaul (of undersea capacity)</p>	<p>High capacity circuits which enable carriers with capacities in submarine cable systems to "carry" these capacities from cable landing stations to their points of presence (gateway) usually within the same country.</p>
<p>(h) Direct Exchange Line (DEL)</p>	<p>DEL service is traditional telephone service for businesses, consisting of individual phone lines to each handset, and direct dialing from the handset to any other number, within the same organisation or outside that organisation.</p>
<p>(i) Integrated Switched Digital Network (ISDN)</p>	<p>ISDN is a circuit-switched telephone service, enabling digital transmission of both voice and data. Different configurations allow different numbers of channels, along with a signalling channel.</p>
<p>(j) Private Branch Exchange (PBX)</p>	<p>A PBX is an exchange serving a private enterprise, enabling users within the enterprise to easily dial each other, while also accessing the public network for outside calls. Unlike DEL service, the PBX does not require a unique outside line for each handset, and indeed may use an ISDN service to connect to the public network.</p>
<p>(k) IP Telephony</p>	<p>IP Telephony is a form of VoIP that requires telephone or E.164 numbers that allows a user to make and receive voice, data and video calls in any domestic or overseas location where broadband Internet access is available.</p>