

**PUBLIC CONSULTATION ON REQUEST BY
SINGAPORE TELECOMMUNICATIONS
LIMITED FOR EXEMPTION FROM DOMINANT
LICENSEE OBLIGATIONS WITH RESPECT
TO THE BUSINESS AND GOVERNMENT
CUSTOMER SEGMENT AND INDIVIDUAL
MARKETS PURSUANT TO SUB-SECTION
2.5.1 OF THE CODE OF PRACTICE FOR
COMPETITION IN THE PROVISION OF
TELECOMMUNICATION SERVICES 2005**

**Submission by the StarHub Group to the Info-
communications Development Authority of Singapore**

18 January 2008

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A. Statement of Interest

- 1.1 StarHub Ltd is a Facilities Based Operator (“FBO”) in Singapore, having been awarded a licence to provide public basic telecommunication services (“PBTS”) by the Telecommunications Authority of Singapore (“TAS”) (the predecessor to IDA) on 5 May 1998.
- 1.2 StarHub Mobile Pte Ltd is a wholly-owned subsidiary of StarHub Ltd. StarHub Mobile Pte Ltd was issued a licence to provide public cellular mobile telephone services (“PCMTS”) by the TAS on 5 May 1998. StarHub launched its commercial PBTS and PCMTS services on 1 April 2000.
- 1.3 StarHub acquired CyberWay (now StarHub Internet Pte Ltd) for the provision of Public Internet Access Services in Singapore on 21 January 1999.
- 1.4 In July 2002, StarHub completed a merger with Singapore Cable Vision to form StarHub Cable Vision Ltd (“SCV”). SCV holds a FBO licence and offers broadband and cable TV services.
- 1.5 StarHub Online Pte Ltd is a wholly-owned subsidiary of StarHub Ltd. StarHub Online Pte Ltd was issued with a licence to provide Public Internet Access Services in Singapore on 22 February 2005.
- 1.6 This submission represents the views of the StarHub group of companies, namely, StarHub Ltd, StarHub Mobile Pte Ltd, StarHub Internet Pte Ltd, StarHub Online Pte Ltd and StarHub Cable Vision Ltd.

B. Detailed Comments

1 Introduction

StarHub appreciates the opportunity to comment on the request by Singapore Telecommunications Ltd (“SingTel”) for exemption from dominant licensee obligations with respect to the business and government customer market segment and individual markets (“Exemption Request”).

StarHub believes that SingTel’s request should be dismissed without further consideration as:

- a) SingTel continues to be the only operator that owns and operates a ubiquitous network with 100% coverage in Singapore. StarHub would submit that such infrastructure control gives SingTel a significant advantage over its competitors in terms of pricing of services, fault resolution times and other service level guarantees.
- b) StarHub submits that despite the claims by SingTel, there is evidence that SingTel’s market share has actually increased in various markets. StarHub has provided market share estimates from independent sources in the Confidential Annex.
- c) As a vertically integrated operator, SingTel has considerable potential to act anti-competitively in the telecommunications market.
- d) SingTel’s ownership in National Computer Systems (“NCS”) also gives SingTel an advantage in bidding for government and business contracts. In its Exemption Request, SingTel itself acknowledges that such customers do not confine their requirements to basic telecommunications services, but also stipulate requirements for IT-related services. SingTel therefore has an advantage over its competitors who do not have ownership or investments in an IT company in Singapore.
- e) The RIO has not been effective in facilitating competition. While SingTel has stated in various parts of its Exemption Request that the RIO facilitates competition, StarHub must disagree with this suggestion. StarHub believes that an examination of the quarterly Provision of Information for RIO service (“RIO POI”) will show that the utilization of most of the services under the RIO is low.

StarHub has provided its detailed comments in the following sections of this submission.

2 Insufficient visibility over information provided by SingTel

StarHub would note that much of the key information that SingTel has provided to IDA to substantiate its Exemption Request has been marked “Confidential”. This makes it difficult for industry players to provide specific rebuttals to issues raised by SingTel or provide IDA with relevant input that can be critical to IDA’s evaluation of SingTel’s Exemption Request.

3 SingTel’s control over infrastructure is a significant advantage

StarHub believes that one over-arching factor that IDA must bear in mind when assessing SingTel’s Exemption Request is the fact that SingTel has operational and ownership control over the only ubiquitous telecommunications network in Singapore.

Despite all the reasons cited by SingTel, the facts remain that:

- No other operator’s network is as pervasive as SingTel’s. Commercial buildings in Singapore are scattered over the entire island, and the only competing infrastructure serving commercial customers are concentrated solely in the CBD area. The networks of the competitive carriers are not able to compete with those of SingTel.
- SingTel’s control over its network is a competitive advantage. With total control over its network, SingTel can price its services lower than its competitors, whilst at the same time provide more favourable non-price terms.
- SingTel is the dominant supplier of wholesale access services. SingTel states that it provides wholesale services to competitors. However, by virtue of its ownership of the network, SingTel can still undercut the market by offering itself more favourable prices and terms. StarHub would note that operators acquiring services from SingTel will still have to cost in their own costs of providing the service. This can result in the competitors’ prices being higher than SingTel’s. With regard to non-price terms (for example, fault resolution times), StarHub would also note that operators will need to factor in their own fault resolution times. Therefore the cumulative fault resolutions times that SingTel’s competitors can commit to customers (own plus SingTel’s) can result in a less attractive offer compared to SingTel’s.
- SingTel’s RIO terms are too onerous to effectively facilitate competition, resulting in RIO services being under-utilized.
- There are some commercial buildings where SingTel can block competitive access. Data Centres and Facility Management (“FM”) Buildings are attracting many businesses who are intensive users of telecommunications services, and who require a secure and alternative site to house IT equipment. However, those sites owned by SingTel are generally not accessible by other competitive service providers. As it is likely that such facilities are used by large companies (due to the large amounts of data they generate), this effectively means that customers housed within SingTel’s FM Buildings cannot

benefit from competition.¹ StarHub would further highlight that a number of these customers moved into SingTel FM sites during the time when SingTel held a statutory monopoly over telecommunications services, and the customers had no choice but to use SingTel's services. It will now be very difficult for those customers to change their FM provider, given the disruption involved in such a change. By "locking" these customers into SingTel's FM space, SingTel already derives a significant unfair advantage against domestic and foreign carriers in offering IP connectivity.

The above issues give SingTel a significant advantage as an owner of a ubiquitous network. StarHub has discussed the issue of network control in other parts of our response, and we submit that this should be one of the key considerations in IDA's assessment.

4 Declining market share is not an indication of sustained competition

In various sections of its Exemption Request, SingTel states that a declining market share in a particular market or service is an indication of a competitive market. StarHub must disagree with this position. A declining market share is not necessarily an indication of a fully competitive market. For example, a dominant operator controlling 80% of the market cannot claim that it is competing in a fully competitive market just because its market share is falling. In its evaluation of the Exemption Request, it is important for IDA to base its assessment on whether the market has reached the stage of sustainable and effective competition.

Exempting SingTel from its dominant licensee obligations at too early a stage can only result in detriment to the market, and possibly undo the benefits of competition that the telecommunications market has seen since April 2000.

¹ StarHub notes that SingTel's Kim Chuan Complex is the only carrier neutral Data Centre operated by SingTel.

5 Customer Segment Request

5.1 The \$250,000 Limit Cannot Be Effectively Determined

SingTel is requesting an exemption from dominant licensee obligations with respect to business and government customers with annual telecommunications spend of \$250,000 and above.

However, StarHub must question how SingTel and/or IDA would determine which businesses or government customers fall within this category. StarHub would submit that it is not possible to clearly demarcate between customers who spend above \$250,000 annually and those who do not, and so the exemption request is fundamentally flawed.

It is highly likely that demarcation disputes would arise if the \$250,000 threshold is used. For example, how will SingTel/IDA decide what represents an individual customer, and will SingTel be able to “pool” the collective spend of several government or corporate customers, in order to have them qualify for the \$250,000 threshold? If a customer reduces its telecommunications expenditure to \$249,000, would this mean that services to that customer are subject again to the provisions of the Code?

StarHub is concerned that exempting SingTel from its Dominant Licensee obligations for this category of customers will, in effect, be a total exemption for the entire suite of services obtained by business and government customers, notwithstanding their annual telecommunications spend.

StarHub therefore believes that SingTel’s Exemption Request with respect to their “Customer Segment Request” should be rejected.

5.2 SingTel’s control of a ubiquitous network

In its Exemption Request, SingTel has played down the significance of its ownership and control of a network with 100% coverage in Singapore. SingTel also states that Singapore’s geographical size and its other characteristics encourage infrastructure rollout by new entrants. StarHub does not agree with SingTel’s position.

5.2.1 Other competing networks

SingTel quotes StarHub’s 2005 annual report which states that StarHub is serving 800 commercial buildings in the CBD as at 30 June 2004. However, StarHub would note that this number is very small compared to the total number of commercial buildings in Singapore. StarHub has provided our estimate in the Confidential Annex, using IDA’s own estimates of the number of commercial buildings. It can be seen that StarHub’s coverage is only a very small fraction of the total number of commercial buildings in Singapore. However, StarHub would note that SingTel has 100% coverage of all buildings (commercial and residential) in Singapore.

SingTel therefore is the only operator that can reach all government and business customers. All other operators will, to a large extent, have to rely on SingTel’s network to provide services to customers.

StarHub would also note that, while it is theoretically possible to obtain interconnect-related services (“IRS”) and mandated wholesale services (“MWS”) under the RIO, or to obtain commercial wholesale services from SingTel, we believe that SingTel will still have the upper-hand as its costs will be lower than the cost structure faced by its competitors (thereby allowing SingTel to undercut its competitors). As the operator of the network, SingTel can also provide itself with more favourable fault resolution and provisioning timeframes. For critical services like those provided to government and business customers, such non-price terms can carry significant weight in bid evaluations.

5.2.2 SingTel’s RIO

In Section 5.115 of its Exemption Request, SingTel states that “the IDA’s extensive regulation of IRS and MWS under the SingTel RIO has removed the impact in the supply of ‘downstream’ retail services of any SMP that SingTel may otherwise have at the wholesale level”. However, we submit that this can only be true if SingTel’s RIO is used extensively by competing service providers.

StarHub believes that SingTel’s RIO has not been effective in providing competitive operators with access to SingTel’s network. StarHub submits that IDA can verify this through the RIO POI reports operators submit to IDA on their usage of services under SingTel’s RIO.

StarHub further submits that the RIO has not been effective in achieving its objectives because:

- a) The tariffs in the RIO can result in situations whereby, if an operator was to obtain an input under the RIO, its final total cost of the service can be higher than SingTel’s retail tariffs for the same service.
- b) The service level guarantees (“SLG”) and quality of service (“QoS”) provided under the RIO are worse than those SingTel provides to its own retail customers. As service providers cannot provide better SLGs or QoS than those of their upstream suppliers, service providers cannot compete with SingTel on service quality.

StarHub believes that, for these reasons, the take up of services under the RIO has been low. SingTel’s suggestion that the RIO has removed any of SingTel’s advantages should therefore be rejected.

5.2.3 Customer Preference for a single provider of services

In SingTel’s Exemption Request, SingTel itself states that “business customers generally prefer one single provider to serve all their telecommunications needs in all countries that the customers are located in”. StarHub would submit that the same can be said of business customers’ requirements in the domestic market. For example, a bank may have a head office in the CBD and have branches in the HDB towns, and so having network coverage in all areas where the bank has its branches is important. A service provider that does not have such coverage, and cannot secure such coverage on effective terms from another network operator, will not be able

to participate in such a tender. As the only operator with a ubiquitous network, SingTel has a significant advantage over the competition in such cases.

5.2.4 Incentive to encourage network rollout even for commercial buildings

SingTel claims that Singapore's geographical size and characteristics promote infrastructure rollout. However, StarHub would note that, in practice, no other operator has rolled out an extensive end-to-end network outside of CBD. SingTel therefore remains the main owner, operator and supplier of infrastructure/network services.

We would highlight that, if SingTel's statement was correct, then there would be no need for the government to provide funding for rollout of the Next Generation National Broadband Network ("NGNBN"). Reality has shown that, without the type of government funding envisaged in the NGNBN, it is extremely unlikely that anyone would be interested in building out extensive fixed network coverage.

SingTel also claims that the higher margins earned from government and business customer contracts will encourage network rollout. Again, StarHub would note that despite 7 years of liberalization in the telecommunications market, network rollout to commercial buildings has been limited, strongly suggesting that there are insufficient margins to encourage the rollout of an alternative to SingTel's access network.

5.3 **SingTel is the only service provider able to provide a complete suite of services**

In its Exemption Request, SingTel provides a list of service providers that provide competing services. However, it must be noted that SingTel is the sole service provider able to provide a complete suite of services to serve customer needs.

Based on StarHub's experience, this is a significant advantage as business and government customers will typically only want to deal with a single party for their telecommunications needs (except in those specific cases where operator-diversity is needed). This means that unless a service provider can meet all the requirements of the tender, they will not be able to participate in the tender. As SingTel can provide a complete suite of services, it has an advantage over its competitors.

In paragraph 5.42 of its submission, SingTel states that "competition is driven by differentiation between participants in the market ... by the 'value-add' the provider is able to offer the customer in terms of managing the provision of the service, e.g. hosting services or **IT services**" (emphasis added). SingTel goes on to quote an Ofcom example in paragraph 5.44 which reads "There is strong anecdotal evidence that telecommunications services are increasingly being purchased by larger businesses as part of a much wider **IT requirement**" (emphasis added). StarHub would note that SingTel's ownership of National Computer Systems ("NCS") provides SingTel with the added advantage of being able to:

- a) Seamlessly participate in tenders requiring IT services; and

- b) Bundle its telecommunications services with NCS' IT services thereby giving it an added advantage over competitors who do not have the ability to provide IT services.

SingTel itself recognizes that, with convergence, there is a shift in customer requirements, with large businesses requiring operators to provide both IT and telecommunications services. StarHub would submit that SingTel's ownership of NCS provides it with that advantage.

5.4 SingTel has market power

5.4.1 SingTel's market share is above 40%

StarHub notes that SingTel has sought to argue that, given the fact that there is a conducive environment for telecommunications operators, and that a number of operators have entered the market, there is no need to analyze market shares, and therefore the 40% presumption for SMP is not relevant to the analysis.

StarHub must disagree with this line of argument. We would submit that :

- a) Having an environment that allows new entrants into the market is not, by itself, a sufficient indicator of a market's competitiveness. Those new entrants might be very small scale, might not offer effective competition to SingTel, and might exit the market in the near future; and
- b) Having a number of licensees in a market is also not a sufficient indicator of a competitive market, as it is possible for the existence of a number of players, but for SingTel to still retain its dominant position in the market. It is also possible that those players are confined to a small segment of the market.

StarHub therefore believes that it is more important to examine the market share of each market where SingTel has applied for exemption of dominant licensee obligations.

StarHub would submit that SingTel has a greater than 40% market share in the markets it has sought an exemption for. StarHub has provided independent estimates of market shares in the Confidential Annex. From the market share estimates provided by StarHub, it can be seen that in many markets, SingTel's market share is even higher than 60% (the threshold for presumption of SMP set by the Competition Commission of Singapore ("CCS")).

5.4.2 SingTel's ability to undercut the market

StarHub would encourage IDA to examine the actual contracted prices for the services provided by SingTel to government and business customers. StarHub submits that one of the reasons why SingTel has been able to gain market share is because of its ability to undercut the market, and therefore win contracts.

We believe that, instead of exempting SingTel from the existing dominant licensee obligations, stricter obligations are needed on SingTel's ability to price its services.

5.5 SingTel's cited reason for not winning tenders are not unique to SingTel

On pages 39 and 40 of its Exemption Request, SingTel cites several reasons for its lack of success in winning bids, tenders or RFPs. However, StarHub would note that these reasons are not unique to SingTel, and that all service providers in Singapore face the same reasons for their own lack of success in these areas.

StarHub would submit that SingTel's regional and global reach puts SingTel in a more favourable position, relative to other service providers.

- Pricing

StarHub would note that all service providers would have "lost" bids due to their inability to offer the lowest prices. StarHub believes that with SingTel's financial strength and control of its network, SingTel has the ability to undercut its competitors.

- Ability to provide services in overseas countries / Infrastructure presence / Single Provider of services

StarHub can agree that MNCs can have a general preference for service providers who are able to provide services on a global or regional basis. However, StarHub believes that SingTel's wide footprint represents an advantage, rather than a disadvantage, for SingTel. StarHub would note that SingTel's tagline on its own website reads: "*SingTel is Asia's leading communications group with operations and investments in more than **20 countries and territories** around the world*" (emphasis added).

StarHub would further note that no operator can have a presence in every major country. While MNCs can prefer operators who are able to provide services in countries in which the MNCs have a presence, StarHub believes that SingTel, with its global presence, is not significantly disadvantaged compared with other foreign operators.

6 Market Based Request

In this section, StarHub has confined its comments largely to SingTel's Market Based Request. However, we believe that our comments on SingTel's Customer Segment Request are also relevant to this section, and would therefore request that IDA consider our earlier comments in its assessment of SingTel's Market Based Request.

6.1 Market 1 – Business Local Telephony Services (“BLTS”)

StarHub submits that SingTel has SMP and controls a major market share in local telephony, ISDN and VoIP services. Further, SingTel is the only operator with a connection to every building (while other operators are either reliant on SingTel for access or are restricted as to the buildings they can serve). StarHub has already discussed SingTel's advantage from its network coverage, and would refer IDA to our earlier comments.

6.1.1 Local Fixed Telephony

SingTel's market share is above 95%

StarHub believes that SingTel's ubiquitous network provides SingTel with a significant advantage over its competitors. This is clearly seen in SingTel's control of the fixed line market share which SingTel itself reports as being “stable at 95.1%”.²

The following table has been extracted from the same report:

Key Drivers	Quarter			Half Year		YOY Chge %
	30 Sep	30 Jun	30 Sep	30 Sep		
	2007	2007	2006	2007	2006	
Fixed working lines (000s)⁽²⁾						
Residential	1,000	1,006	1,036	1,000	1,036	-3.4
Business	761	756	755	761	755	0.8
Total	1,761	1,762	1,791	1,761	1,791	-1.6
Singapore fixed line penetration rate⁽³⁾	39.6%	41.2%	42.4%	39.6%	42.4%	
Singapore fixed working lines (000s)⁽³⁾	1,852	1,847	1,847	1,852	1,847	0.3
Fixed Line market share⁽³⁾	95.1%	95.4%	97.0%	95.1%	97.0%	

Notes:

- (1) Include revenue from enhanced telephone services, payphones, DEL interconnect and call management services such as 1900/1800 call services, Telepoll and mio voice.
- (2) Fixed working lines refer to Direct Exchange Lines (DEL) and mio voice.
- (3) Source: IDA

Table 1: SingTel Fixed Line Market Share

² SingTel Group results for the second quarter ended 30 September 2007

It can be seen from SingTel's report that as of 30 September 2007, SingTel has a total fixed line market share (residential and business) of 95.1%, comprising 761,000 business lines.

By carrying out a further analysis of SingTel's fixed line market share, StarHub found that that SingTel's market share of business fixed line telephony is, in fact, 99.4% (as of Sep 2007). Our analysis is tabulated below:

Fixed Line (Direct Exchange Lines)	Sep-07	Jun-07	Sep-06
SingTel Total Business Lines (000s)	761	756	755
Singapore Total Corporate Line Subscriptions (000s)	765.6	760	756.5
SingTel market share	99.40%	99.47%	99.80%

Table 2: SingTel's Business Line Market Share

It can be seen that SingTel has consistently maintained a market share of more than 99% even after more than 7 years of the liberalization of the Singapore telecommunications market. This market share figure is well above the thresholds of both IDA's stipulated 40% market share³ as well as the Competition Commission's 60% market share for presumption of market power.

Competitors have not been able to erode SingTel's position

In its Exemption Request, SingTel provides a list of market participants (including SBOs) providing VoIP services. However, IDA must note that whilst there may be a number of market participants, SingTel's market share clearly shows its dominance and control of the market. The evidence clearly points to the fact that SingTel's competitors have not been successful in eroding SingTel's market share. We would also note that the long-term viability of many VoIP operators has yet to be established.

6.1.2 ISDN Service

StarHub submits that SingTel has SMP in the ISDN market. StarHub would refer IDA to the Confidential Annex to this submission for market share estimates based on an independent study. StarHub submits that SingTel's market share for ISDN services far exceeds the 40% threshold for presumption of market share under the TCC. Again, StarHub would attribute this to SingTel's advantage in its control over a pervasive network.

6.1.3 Substitute Services

SingTel cites VoIP as a substitute service to its fixed local telephony service. While VoIP services are gaining some acceptance amongst business customers, we believe that the take up rate has not been significant enough to consider it a true competitor to fixed line telephony services.

³ IDA's Reclassification and Exemption Advisory Guidelines under Sub-sections 2.3 and 2.5 of the TCC (30 September 2005).

StarHub would note that the quality of VoIP has not reached the level of fixed line telephony services and, as SingTel has pointed out, the cost of business telephony services in Singapore is very competitive when compared to international benchmarks. Business customers therefore may not see a need to trade off quality for price savings at this moment. They may however use VoIP services selectively, more as a complementary service, than as a substitute to fixed telephony.

We would note that the number of PSTN lines offered by SingTel has remained relatively stable over time. If SingTel's argument was correct, and customers regard VoIP as an effective substitute to fixed local telephony services, it is likely that there would have been a significant reduction in the number of PSTN lines SingTel provides. The fact that there has been no such reduction suggests that customers do not see VoIP as an effective substitute to fixed local telephony services.

In addition, StarHub would note that SingTel is itself a provider of VoIP services in the form of its iPhoneNet and ConnectPlus services. Based on an independent report (see Confidential Annex), StarHub would submit that SingTel also has a major market share in the VoIP market.

It can therefore be seen that SingTel has the major market share for BLTS, as well as other voice services (like VoIP).

6.1.4 Conclusion

From the evidence provided by StarHub, it can be seen that SingTel has, by far, a much larger market share than even its closest competitor. StarHub therefore submits that IDA should reject SingTel's Exemption Request for BLTS for all market segments. StarHub believes that, without regulatory intervention, SingTel is in a position to engage in anti-competitive practices (e.g. predatory pricing and using cross-subsidies), especially given its control over upstream facilities, to the detriment of the market.

6.2 Local Leased Circuits (“LLC”)

6.2.1 Market Definition – Substitute Services

In its Exemption Request, SingTel cites several services which it claims are substitutes to LLCs. StarHub must disagree with this suggestion.

- Digital Subscriber Lines (“DSL”): SingTel quotes an OECD report which states that both Asymmetric and Symmetric DSL are expected to increasingly be substitutes for LLCs. However, StarHub would note that with SingTel’s extensive network coverage, SingTel has an inherent advantage over its competitors. SingTel is also the dominant DSL provider in Singapore. Even though SingTel claims that FBOs/SBOs can acquire services from SingTel to create their own services, the fact remains that as owner and operator of the network, SingTel can provide better SLGs and fault handling for its own services.
- Cable modem services: Please refer to the Confidential Annex for a discussion on StarHub’s cable modem services.
- Local ATM, Local Frame Relay (“FR”), ISDN services: In paragraph 7.73, SingTel cites these services as substitutes to the LLC service. However, StarHub would note that even in these services, SingTel controls a major market share. StarHub has discussed these services in other sections of this submission.

6.2.2 The Tail LLC service in the RIO has been ineffective in promoting competition

SingTel states that its mandated offer of Tail LLCs under the RIO enables FBOs to acquire SingTel’s LLCs (at cost-based rates) to provide their own services. However, it is important to note some of the key problems faced by FBOs in taking Tail LLC services. These problems include:

- Prices: Despite the fact that the Tail LLC service is cost-based, StarHub has found that SingTel has been able to undercut the cost-based rates, and provide more attractive wholesale rates. The cumulative cost of rolling out a parent trunk, establishing a co-location space, acquiring the tail circuit as well as covering an FBO’s own costs make it extremely difficult for FBOs to compete with SingTel on price when using Tail LLC services.
- SLGs and Fault Resolution: SingTel’s own LLC service provides similar SLGs and fault resolution times as the RIO. However, it must be noted that FBOs acquiring services under the RIO will need to build in their own response times. This effectively means that FBOs acquiring Tail LLCs under the RIO cannot provide better SLGs than SingTel’s own LLC service.
- Diversity and Coverage: SingTel’s wholesale service provides full exchange diversity whereas under the RIO, an FBO will only have connection and coverage limited to the exchange to which it rolls out. In order to obtain a wider coverage, the FBO will need to

rollout to a larger number of SingTel's exchanges. This increases both the costs and business risks for the FBO.

StarHub therefore submits that, as currently drafted, the terms of SingTel's offer of Tail LLCs under the RIO cannot be considered an effective means for competing with SingTel. We would note that, if Tail LLC services represented an effective means of competing with SingTel's retail service, there would have been a very high take-up of Tail LLCs. StarHub believes that the low level of Tail LLC usage highlights the weakness of these services.

6.2.3 Obtaining Unbundled Local Loop ("ULL") under the RIO is not a feasible substitute to LLC

In paragraph 6.74 of the Exemption Request, SingTel states that there are a range of alternative access technologies available to FBOs under the RIO which enable FBOs to offer LLC at bandwidths of up to 2 Mbits/s. SingTel cites the example of ULL. However, StarHub would note that there are numerous practical obstacles in obtaining ULLs under the RIO. Some of the obstacles that StarHub has encountered include:

- The lack of available copper at a site, as SingTel has already upgraded its cabling to optical fibre in a number of cases; and
- The length of the circuit, which can have a significant impact of QoS. We would note that the length of SingTel's circuits cannot be determined on an ex-ante basis.

We believe that the difficulties involved in ULL services is highlighted by the low take-up of these services. Given the difficulties involved in ULL services, we do not believe that the existence of ULL services in RIO can be considered an effective constraint on SingTel's market behaviour.

6.2.4 There is a lack of alternative suppliers

StarHub further submits that there is a lack of alternative supply for wholesale LLC services. While SingTel has provided some examples of network operators from whom FBOs can obtain wholesale supply from, the fact remains that the network coverage of the alternative suppliers is very limited.

As StarHub has stated, large customers, like financial institutions, with branches in many parts of Singapore, prefer service providers that are able to provide connectivity to all their branches. As SingTel has 100% coverage in Singapore, it clearly has the advantage when bidding for such contracts.

In addition, with its control over the network, SingTel can also provide better SLGs and provisioning timeframes.

6.2.5 The alternatives technologies cited by SingTel are not feasible

StarHub would note that, with the exception of Wavelength Division Multiplexing services ("WDM"), the other the services cited by SingTel as alternative technologies cannot be

considered feasible alternatives. For example, GPRS and UMTS are not practical alternatives to LLCs as, by nature, they are mobile services and are not designed for the transfer of large amounts of corporate data traffic.

In addition, as SingTel has stated, business and government customers are specific in their requirements and needs. StarHub would note that wireless services have never been within the spectrum of services requested for by such customers (in place of LLCs).

6.2.6 SingTel's revenue has grown in the last quarter

StarHub would note that SingTel reported a year-on-year revenue growth of 9.8% for the quarter ended September 2007⁴, and 12% for the quarter ended June 2007⁵. We believe that this revenue growth supports the suggestion that SingTel remains a dominant entity.

StarHub has also provided our estimate of market shares in the Confidential Annex. Again, it shows that SingTel has a market share that is far higher than the threshold for presumption of SMP. StarHub would submit that such market share control, taken together with SingTel's continued revenue growth, shows that SingTel's competitiveness has not been affected by dominance regulation.

6.2.7 Conclusion

StarHub believes that we have demonstrated conclusively that SingTel continues to retain SMP in the LLC market. SingTel's market share has increased despite being subject to dominant licensee regulation under the TCC. StarHub believes that any exemption granted to SingTel will result in SingTel's foreclosure of the LLC market. We therefore believe that SingTel's Exemption Request for LLCs must be rejected.

⁴ SingTel's Management Discussion and Analysis of Financial Condition, Results of Operations and Cash Flows for the second quarter and half year ended 30 September 2007

⁵ SingTel's Management Discussion and Analysis of Financial Condition, Results of Operations and Cash Flows for the first quarter ended 30 June 2007

6.3 Local Managed Data Services (“LMDS”)

6.3.1 Market Share

LMDS are Layer 2 and 3 services derived from LLCs. As StarHub has shown, SingTel remains the dominant provider of LLC services. This advantage will naturally result in SingTel's dominance in the LMDS market as well (please refer to Confidential Annex for market share information).

It can be seen from the market share information provided that SingTel controls a major market share in the Local ATM and Local IP-VPN markets. StarHub believes that the same dominance can be assumed for other LMDS services such as Local FR and Local ME, given SingTel's control of the LLC market.

It is also noteworthy that SingTel itself reports that its Managed Services revenue (ending Sep 2007) has grown by 11% year-on-year and 3.2% compared to the preceding quarter.⁶

6.3.2 SingTel's dominance has forced its competitors to differentiate their products

In paragraph 6.142 of its Exemption Request, SingTel claims that “aggressive competition has also brought forth non-price features”. StarHub must disagree with this position. StarHub believes that it is the inability for competitors to compete with SingTel on “price terms” that have forced competitors to differentiate their products.

However, StarHub would note that, as long as service providers are reliant on SingTel's network for access to customers, SingTel will still have the advantage of better SLGs and fault resolution times.

Further, StarHub would also note that SingTel is able to offer all the “service offerings” it mentions in this paragraph. Therefore, SingTel is able to fully compete against its competitors on both price and non-price terms. It is clear that dominant licensee regulations have not hampered SingTel's ability to compete.

6.3.3 Conclusion

As LMDS are derived from LLC services, IDA should take the comments on LLCs into account in considering SingTel's Exemption Request for LMDS. StarHub believes that we have clearly shown that SingTel has a dominant position in this market, and that any exemption granted to SingTel will further distort the market in SingTel's favour. By virtue of SingTel's dominance in the LLC market, we respectfully submit that IDA should not consider any requests for exemption for such derived services until SingTel's market share for LLCs has fallen to a level below 40% (the threshold for presumption of SMP).

⁶ SingTel's Management Discussion and Analysis of Financial Condition, Results of Operations and Cash Flows for the Second Quarter and Half Year ended 30 September 2007

6.4 Terrestrial International Private Leased Circuits (“IPLC”)

6.4.1 SingTel’s market share is still above 40%

StarHub notes that IDA had agreed to review SingTel’s application for waiver of dominant licensee obligations two years from its last decision. However, StarHub would submit that SingTel’s market share still remains above 40% (the threshold for presumption of SMP), and that the market environment has not sufficiently improved to warrant granting an exemption to SingTel at this time.

There has been little or no change to SingTel’s control over essential facilities that are crucial for the IPLC service (such as cable landing stations). SingTel also continues to have control over the majority of submarine cables landing in Singapore.

StarHub has provided SingTel’s estimated market share in IPLC in the Confidential Annex. SingTel states that its market share has fallen, but StarHub would submit that falling market share alone cannot be equated to a competitive environment. IDA must also consider whether competition has stabilized such that, even if SingTel is exempted from its dominant licensee obligations, it will not be able to destabilize the market. StarHub believes that such is not the case for IPLCs, and that SingTel still wields considerable market power.

Finally, StarHub would note that, according to information available to StarHub, SingTel’s market share appears to have actually increased since 2006. This is discussed in greater detail in the Confidential Annex.

6.4.2 SingTel’s control over essential facilities has an impact on the market

Cable Landing Stations

As highlighted previously, StarHub submits that SingTel’s control over essential facilities has a major impact on competition. As a FBO operating the cable landing stations, SingTel has the advantage of providing better SLGs and fault resolution times than its competitors. For a critical service like IPLCs, these non-price terms can be a critical consideration.

Cable Ownership

In paragraph 6.148 of its Exemption Request, SingTel claims that there is substantial submarine cable capacity and connectivity in Singapore. While StarHub can agree with this statement, we would, however, point out that SingTel has ownership and administrative rights over the majority of the cables landing in Singapore. This provides SingTel with an advantage in terms of access and provisioning.

RIO

In the same paragraph, SingTel also claims that improvements in the RIO have made the imposition of dominant licensee regulations on SingTel unnecessary and unwarranted. StarHub

must disagree with this statement, and has discussed some of the difficulties with the RIO in other sections of this submission.

6.4.3 The relevant market is Singapore

In paragraph 6.156, SingTel states that “many alternative providers of Terrestrial IPLC are incumbents in their home markets” and “possess a competitive advantage by having the ability to bundle their local loops in their home markets in their Terrestrial IPLC offers to Singapore customers”. StarHub would note that SingTel has the same advantage in the Singapore market. In addition, StarHub would note that the relevant market to be considered is the Singapore market, and that therefore IDA should not consider the situations in other markets. We would also note that a number of overseas countries regulate the mandated provision of wholesale services in a more extensive manner than is the case in Singapore.

6.4.4 Conclusion

StarHub believes that SingTel is still a dominant player in the IPLC market. This fact is borne out by the market share figures that StarHub has presented in its Confidential Annex. StarHub believes that this is largely due to SingTel’s control over essential facilities that are related to the IPLC service. For this reason, StarHub submits that SingTel’s Exemption Request for IPLC service should be rejected.

6.5 International Managed Data Services (“IMDS”)

StarHub submits many of the arguments raised by SingTel in its Exemption Request for IMDS are similar to those it has raised for other services. StarHub has addressed these issues in various sections of our submission, and would request that IDA takes those comments in consideration in its assessment of SingTel's Exemption Request for IMDS.

6.5.1 International Frame Relay Services (“IFR”)

In paragraph 5 of Annex 2E of its Exemption Request, SingTel states that its market share for IFR in the second half of 2006 was less than 40%. StarHub must question that statement.

StarHub believes that there is a growing migration of customers from IFR services to International IP-VPN services. Therefore, the actual market for FR services (which forms part of IMDS) may actually be shrinking. While SingTel may be “losing” IFR customers, it may be gaining International IP-VPN customers, and therefore retaining its overall dominance in IMDS.

StarHub would note that IDC reports that overall IFR service revenues have actually fallen from \$105.82m in 2002 to \$45.81m in 1st half 2007⁷ which supports the view that there is a shift in interest from IFR.

6.5.2 International IP-VPN services

In paragraph 17 of Annex 2E of its Exemption Request, SingTel states that by 2006, its International IP-VPN market share was already less than 40%.

StarHub has provided information on market shares in the Confidential Annex. Given SingTel's dominance in the Singapore telecommunications market, we believe it highly likely that SingTel is gaining market share within the International IP-VPN market.

6.5.3 SingTel's control over local access gives it an advantage in IMDS

SingTel's control over the local access network has enabled it to maintain relatively high prices for International Data services. Based on StarHub's estimates, the cost of SingTel's local access accounts for between 40% - 70% of the IMDS charges. This has resulted in service providers being “squeezed,” and forced to reduce the prices of the “international portion” of IMDS services in an attempt to compete with SingTel. This also means that SingTel is able to continue to earn super-normal profits from both the local access and international portions of IMDS.

StarHub has provided a comparison between SingTel's local access charges with respect to IMDS charges (see Confidential Annex). The comparison clearly shows that SingTel's local access charges constitute a major percentage of the total charge for IMDS. SingTel is able to impose high local access charges by virtue of its network control, and thereby effectively set a

⁷ IDC Fixed Line Telecom Services Database – 1H 2007

“floor price” for International data services through its local access charges. We do not believe that this is indicative of a market that is fully competitive.

6.5.4 Conclusion

While StarHub does not have access to market share figures for IMDS, we believe that SingTel's control over the local access network gives it control over the market for IMDS. StarHub has shown that SingTel can influence the prices for IMDS through its charges for the local access. StarHub believes that this is a clear indication of SMP, and we would therefore submit that SingTel's Exemption Request for IMDS should be rejected.

6.6 Backhaul Services

6.6.1 SingTel's controls of major cable landing stations and submarine cables landing in Singapore

StarHub would note that SingTel controls all the major cable landing stations (the only exception being those owned by Asia Netcom/Pacnet), and is the cable administrator for the majority of cables landing in Singapore. Despite the introduction of connection services under the RIO, and the ability for FBOs to establish co-location spaces in SingTel's Cable Landing Stations, we believe that SingTel's position as a cable administrator gives it substantial advantages over other competitive backhaul providers. For example, while competitive providers are subject to the RIO timelines to obtain connection services, SingTel (as cable administrator and cable owner) is able to start offering backhaul services to customers ahead of its competitors.

While StarHub would acknowledge that there has been improvement to the RIO in regard to connection services and access to SingTel's cable landing stations, we do not believe that these improvements are sufficient to establish a truly level playing field. We therefore submit that it would be inappropriate, at this time, to grant exemptions to SingTel from its dominant licensee obligations.

6.6.2 SingTel's determination of market share

While there is no publicized data on market shares for backhaul services, StarHub must question SingTel's projected market shares in its Confidential Annex 2F. StarHub's concern stems from the fact that in paragraph 6.217, "SingTel maintains the view that self-provided backhaul should not be included in the definition of the backhaul market". IDA must ensure that in SingTel's estimation of market shares, SingTel has been consistent in its definitions.

StarHub believes that most operators include self supply when reporting backhaul data, and therefore submits that self supply should be included in the market share assessment.

6.6.3 Conclusion

StarHub submits that SingTel's control over cable landing stations and submarine cables landing in Singapore (in its role as cable owner and cable administrator) gives SingTel an advantage over competitive backhaul providers. Despite improvements made to the RIO, SingTel has still been able to provide access to cables (especially new cables) earlier than its competitors. StarHub therefore believes that SingTel's Exemption Request for Backhaul Services should be rejected.

C. Conclusion

StarHub submits that SingTel remains a dominant operator in the Singapore telecommunications market. There has been little change in the market situation since IDA's consideration of SingTel's requests for exemption for various services in 2005. SingTel's continued control over essential "upstream" facilities, and access to end users, provides SingTel with a distinct advantage over its competitors.

StarHub has shown that:

- SingTel has consistently been able to defend its market share and, has managed to grow its market share for several services;
- SingTel's control over a ubiquitous network provides SingTel with a significant competitive advantage;
- The RIO has not facilitated competition as anticipated, a fact supported by the low level of utilization of many RIO services; and
- Competition in the telecommunications market in these services has not matured or stabilized to the degree that SingTel can be effectively "regulated" by competitive forces.

We therefore conclude that SingTel's request for exemption from dominant licensee obligations, with respect to the business and government customer segment and individual markets, must be rejected. We are not aware of any factor suggesting that effective competition has developed to the extent that the dominance obligations on SingTel can be removed.