

## **SINGAPORE TELECOMMUNICATIONS LIMITED**

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### **REVIEW OF THE CODE OF PRACTICE FOR INFO-COMMUNICATIONS FACILITIES IN BUILDINGS (“COPIF”)**

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#### **1. STATEMENT OF INTEREST**

- 1.1 Singapore Telecommunications Ltd (“SingTel”) is an Facilities-based Operator (“FBO”), licensed by the Info-communications Development Authority of Singapore (“IDA”). SingTel has also been designated by the IDA as a Public Telecommunications Licensee (“PTL”) under Section 27 of the Telecommunications Act 1999 (now known as the “Telecommunications (Amendment) Act 2005”).
- 1.2 The SingTel group has a comprehensive portfolio of services that includes voice and data services over fixed, wireless and Internet platforms. SingTel provides services to both corporate and residential customers and is committed to bringing the best of global communications to its customers in the Asia Pacific and beyond. As a leading provider of telecommunications services and a leading proponent of innovation and competition, the SingTel group has a strong interest in effective pro-competition regulation of Singapore’s telecommunications industry.
- 1.3 The IDA has released a consultation paper entitled “Review of the Code of Practice for Info-communications Facilities in Buildings” (“COPIF”) (the Consultation Paper). Our comments in response to the Consultation Paper are outlined below.

## **2. GENERAL COMMENTS**

### **2.1 Merging of Broadband Coaxial Cable System (“BCS”) Facilities with Telecommunications (Non-BCS) Facilities**

SingTel generally supports the IDA proposal to combine the equipment rooms and vertical risers for telecommunications (non-BCS) and cable services into a common equipment room (i.e. one MDF room or Telecom Equipment Room per development) and vertical risers.

With respect to the proposed requirement for physical separation of telecommunications (non-BCS) and BCS installations within the vertical risers so as to reduce any possibility of RF interference, we believe that this should be an adequate safeguard. However, there may be instances where interference occurs and there must be a Standard Operating Procedure in place to address such occurrences.

### **2.2 Removal of cable ready certification as a pre-requirement to obtain certificate of statutory completion (“CSC”)**

SingTel supports the IDA’s proposal to remove the requirement for developers or owners to obtain cable-ready certificates from SCV to qualify for CSC.

### **2.3 Broadband Coaxial Cable System (“BSC”) and Internal Wiring & Cabling Distribution System for Residential Properties**

SingTel supports the IDA’s proposal that single-unit landed residential properties owners not be required to install BCS for cable services and/or internal wiring for telephone services but need to submit a declaration to IDA.

SingTel also supports the mandatory requirement for multi-tenanted residential developments.

### **2.4 Different MDF Room Dimensions for Different Categories of Buildings**

SingTel generally supports the IDA proposal to fine-tune the specifications of the MDF room dimensions for residential and non-residential buildings in the manner described in the paper.

## 2.5 Electricity used in MDF rooms/Telecom Equipment Rooms (“TERs”)

SingTel does not support the IDA proposal that building developers and/or owners are not obliged to bear the charges for electricity used by telecommunication systems licensees.

The costs of electricity and / or any other utilities should be borne by the building developers or owners. Telecommunication system licensees install plant and equipment in order to serve the building’s telecommunication needs. Hence, the consumption of electricity and /or utilities is directly related to the building telecommunication needs. It is neither fair nor reasonable for the telecommunication system licensees to bear the related electricity or utility charges.

Further, we note that even were the IDA to require the telecommunication system licensees to bear the utility charges, it is not practical or feasible where more than one telecommunication system licensee has installed equipment in the MDF or TER. For example, if each telecommunication system license opens a separate metered account in the same room, it may not be acceptable to the electricity service provider. Additionally, it would need extensive and costly re-wiring that can be very disruptive to existing services.

It is also relevant to note that the proposal by the IDA could have the effect of increasing the cost of providing telecommunication services to End Users.

## 2.6 Usage of Space and Facilities within or on a building or land

Whilst the IDA has proposed a new section covering the use of space and facilities by telecommunication system licensees in a multi-network and multi-operator environment, we note with concern that the proposal should not be overly burdensome, such as to limit the amount of space to licensees, and should not limit the level of deployment by licensees. We further provide comments on this in the following section.

## 2.7 Roof-Top Space and In-building Mobile Coverage Facilities

We note with concern that the Draft COPIF does not require building developers or owners to provide space and facilities for operators to install plant or system necessary for the provision, or the enhancement of quality, of the mobile cellular service to the building.

With mobile penetration far exceeding fixed-line penetration (where approximately 93% of the population uses mobile services), we believe there is a need for the IDA to review its thinking in respect of the provision of access and space for mobile operators. It is also pertinent given the impending auction of broadband wireless spectrum and the need for successful bidders to obtain access to roof-top space to roll-out their networks.

For example, mobile operators today frequently face obstacles in obtaining the necessary space and facilities for the installation of equipment necessary to the provision of mobile services. This is often hindered by building developers and/or owners delaying the negotiations or requesting exorbitant rents from mobile operators. In some cases, in-building deployment plans are abandoned due to difficulties faced by the mobile operators in obtaining access on reasonable terms and conditions.

Given that the Telecommunications (Amendment) Act 2005 and the IDA's Code of Practice for Info-communication Facilities In-Building ("COPIF") provide the IDA with the powers to require building developers and/or owners to provide the necessary space and facilities for the provision of telecommunication services, we would request that the IDA review and strengthen its regulatory framework applicable to in-building facilities to enable the mobile operators to obtain efficient access in the same way that fixed line operators are able to access buildings for installation of plant, or on any reasonable terms and conditions.

In light of the above, we propose that the COPIF be amended to provide mobile operators with roof-top space and in-building access on a similar basis that space and facilities are provided for fixed-line operators.

In the event that the IDA is not inclined to adopt an approach similar to fixed-line service, SingTel would propose that the IDA establish the terms of use of roof-top

space and in-building space by mobile operators in one of the following ways: mobile operators be allowed to install their equipment at no charges, or at rates determined by the IDA, or at an average benchmark rate.

### **3 SPECIFIC COMMENTS**

#### **3.1 Sub-section 2.2.2 (Under “Imposition of Charges for Use of Space and Facilities”)**

##### **IDA Proposal**

*The IDA has stated that building developers and/or owners are not obligated to bear any charges for utilities (e.g. electricity) required to operate the installation, plant and systems that are installed within the space and facilities by telecommunication system licensees and can make arrangements with the telecommunication system licensees to pass on such utility charges to them. Building developers and owners can achieve this by installing separate power supply meters for each FBO or apportion cost based on the power rating of equipment and other mutually acceptable arrangement.*

##### **Comment**

We refer to our comments in paragraph 2.5 above.

#### **3.2 Section 2.4.1 (under “Duty to Assist in the Installation of Plant”)**

##### **IDA Proposal**

*The IDA has stated that in the event that new or additional telecommunication installation or plant is required to be installed within the space and facilities of the building, the developer or owner shall provide reasonable assistance to the telecommunication system licensee to facilitate such installation work.*

### Comment

We submit that the reasonable assistance provided to the telecommunication system licensee should include removing and reinstating of fire stopping material, sealing the floor opening inside the riser duct or opening up of ceiling boards/panels etc. This should be included in the COPIF.

### 3.3 Sub-section 3.9.3 (under “Inspection Procedure for Completed Space and Facilities”)

#### IDA Proposal

*The IDA has stated that the Joint Inspection shall be confined to the following space and facilities:*

- (a) MDF room and lead-in pipes;*
  - (b) Telecommunication Equipment Room(s) (“TER”) and lead-in pipes; and*
  - (c) Telecommunication Riser(s).*
- (hereinafter collectively referred to as the “Inspection Items”)*

#### Comment

Our experience shows that some MDF rooms are linked to the lead-in pipe by way of cable tray and we believe that this should be included as part of the joint inspection where applicable.

In addition, property developments involving the construction of a number of building blocks may include manholes and connecting pipeline to link the different building blocks to the MDF room. We believe that these facilities should be included as part of the joint inspection, where applicable.

#### 3.4 Section 3.10 Provision of Access to the Space and Facilities

##### IDA Proposal

*The IDA has stated that developers or owners shall grant telecommunication system licensees reasonable access to their buildings and lands so as to enable such licensees to install and operate their installation, plant and systems to serve the buildings, including carrying out any necessary repair, maintenance and upgrading works.*

##### Comment

We submit that this section should specify clearly that the building developers and /or owners should not be permitted to levy charges on the telecommunication system licensees undertaking such activities. The purpose of accessing the building or land is to deliver, improve or maintain the provision of telecommunications services to the buildings and as such, levying of charges would be incongruent with this purpose.

#### 3.5 Section 3.12 Duty to Assist in the Installation of Plant

##### IDA Proposal

*The IDA has stated that in the event that new or additional telecommunication installation or plant is required to be installed within the space and facilities of the building, the developer or owner shall provide reasonable assistance to the telecommunication system licensee to facilitate such installation work.*

##### Comment

Please refer to our comments in paragraph 3.2 above.

3.6 Section 5.2 General Requirements for Lead-in Pipes

Comment

We note that generally, services over-crossing drains could be diverted in future as and when the Drainage Department requires so. The Drainage Department therefore requires a letter of undertaking to this extent before they approve the services over-crossing drains.

As the lead-in pipe(s) are owned and maintained by the building developer and /or owner, it is therefore appropriate that they provide the letter of undertaking to the Drainage Department. We request that this be specified in the COPIF.

3.7 Sub-section 5.2.4 (under “General Requirements for Lead-in Pipes”)

IDA Proposal

*We note that building developers and/or owners are to consult the TFCC for guidance on the location and orientation of the lead-in pipes into building or building complex within the development boundary.*

Comment

We submit that the COPIF should specify clearly the need for the building developer and /or owner to extend the lead-in pipe in order to meet the telecommunication system licensee’s existing ducting network. This is needed in order to avoid cases where the building developer and /or owner did not consult TFCC and proceeded to provide lead-in pipe on the opposite side of building or building complex from the telecommunication system licensee’s existing ducting network.



3.8 Sub-section 5.5.6 (under “Lead-in Pipes for Cluster or Strata Landed Houses and Single-Unit Landed Houses”)

Comment

We note that the Draft COPIF is silent on what occurs when the existing telecommunication plant needs to be relocated to the gatepost.

We submit that the IDA specifies clearly in the COPIF that under such circumstances, the building developer and/ or owner shall make arrangements with the relevant telecommunication system licensees for reconnection or relocation of existing underground plant related to telecommunications (non-BCS) services

3.9 Section 10.1.5 (under “Overview - Requirements for Installation of Broadband Coaxial Cable System”)

IDA proposal

*Single-unit landed residential properties owners will not be required to install BCS for cable services and/or internal wiring for telephone services but need to submit a declaration to IDA if they decide to take up this option whilst the requirement for installation remains mandatory for multi-tenanted residential developments, save that IDA will not mandate the type of wires that developers or owners may choose to install.*

Comment

Please refer to our comments in paragraph 2.3 above.

3.10 Sub-section 11.1.2 (under “Overview”)

IDA Proposal

*The IDA has stated that the draft COPIF aims at ensuring that the space and facilities for telecommunication services in buildings are efficiently utilised by telecommunication system licensees within the context of a multi-operator, multi-network environment so as to facilitate increased network rollout and deployment of telecommunication infrastructure. Hence, telecommunication system licensees should not use the space and facilities in a manner which prevents other telecommunication system licensees from installing their own installation, plant or system within the same space and facilities.*

Comment

Please refer to our comments in paragraph 2.6 above.

Whilst we note the intent of the Draft COPIF, the deployment of equipment by different operators in the space and facilities provided should not be so tightly packed that there is insufficient turn-around space to replace or upgrade equipment that are due for replacement.

This is a real and practical concern, given that the amount of space accorded to telecommunication system licensees is specific and limited and more than one telecommunication system licensee is expected to access such space and facilities in order to install equipment and plants.

3.10 Sub-section 11.1.3 (under “Overview”)

IDA Proposal

*The IDA requires that a telecommunication system licensee must first obtain the informed consent of the developer or owner in relation to every aspect of its proposed use of the space and facilities before it can proceed to install its installation, plant or system within the same.*

### Comment

There are cases where the installations have already been made or would be made before the effective date of the revised COPIF. We seek confirmation that the requirement to obtain the informed consent should not be applied retrospectively.

Further, we note that the requirement for a telecommunication system licensee to seek consent, in the manner described in the draft COPIF, is likely to hinder the speed of service provision in future as the telecommunication system licensee will need to expend time to seek the necessary consent before they can proceed to install plant or system within the space provided. Therefore, we request the IDA review this and allow the telecommunication system licensee to simply inform the building developer and/or owner, rather than seek consent.

### 3.11 Sub-section 11.3.1.3 (under “ General Principles relating to the Use of Space and Facilities”)

#### IDA Proposal

*The IDA has stated that a telecommunication system licensee shall only install such installation, plant or system that is able to meet both its current demand and its expected demand for up to a maximum of three (3) months.*

#### Comment

Please refer to our comments in paragraph 2.6 above.

This is an unreasonable and impractical restriction. The nature of telecommunications investment is “lumpy”. Competent telecommunications operators do not plan for only their current needs or for only their needs in next 3 months. To do so would be inefficient and costly.

It is not clear how the IDA deems that three (3) months’ demand is sufficient – it is not. We are aware that the demand could in fact fluctuate and to restrict the installation to only three (3) months’ demand is clearly not practical. For example, we note that in many cases, some buildings may not be fully occupied even one year or more after obtaining a Temporary Occupation Permit. For such cases, it is

neither cost effective nor efficient for a telecommunication system licensee to top-up the plant and installation resource(s), which will be very frequent based on the drafting of this sub-section.

We submit therefore, that the COPIF should not place any restriction on the amount of installation, plant or system that a telecommunication system licensee can install in buildings.

3.12 Sub-section 11.3.1.4 (under “General Principles relating to the Use of Space and Facilities”)

Comment

Please see our comments in paragraph 2.5 above.

3.13 Sub-section 11.3.1.7 (under “General Principles relating to the Use of Space and Facilities”)

IDA Proposal

*The IDA requires that when doing anything on the property of a developer or owner in connection with its use of the space and facilities, a telecommunication system licensee shall not do or permit or suffer to be done upon the said property anything which may be or may become a nuisance, annoyance, disturbance, inconvenience, injury or damage to or in any way interfere in the quiet and comfort of its occupants and shall not use the same for any illegal or immoral purpose.*

Comment

We note that when carrying out activities in connection with its use of space and facilities, it is inevitable that noise will be caused, during installation or by operating equipment. We note that the COPIF should therefore be revised to specify that any noise level must be maintained within the tolerable noise level specified by the National Environment Agency (“NEA”).

3.14 Sub-section 11.3.3.1 (under “under “General Principles relating to the Use of Space and Facilities”)

IDA Proposal

*The IDA requires that in situations where telecommunication system licensees intend to install multiple fibre or copper cables to the same building to provide telecommunication services, telecommunication system licensees should, subject to feasibility, install sub-ducts in the lead-in pipes such that each lead-in pipe can accommodate multiple fibre and/or copper cables.*

Comment

This requirement should be removed. The installation of sub-duct inside lead-in pipe is not recommended, nor would it be helpful, if there are bends and where less number of sub-ducts can be installed thereby reducing the space available for cables.

3.15 Sub-section 11.3.3.2 (under “General Principles relating to the Use of Space and Facilities”)

IDA Proposal

*The IDA states that telecommunication system licensees may*

- *Connect lead-in pipes to their own underground pipeline systems based on their immediate and expected duct requirements for laying of telecommunication cables into buildings.*
- *However, telecommunication system licensees are required to give up and disconnect the unused or inefficiently used lead-in pipes(s) at their own expense if other telecommunication system licensees (new or existing) require the use of lead-in pipes to provide services to the building.*
- *Telecommunication system licensees that are designated as public telecommunication licensees are allowed to reserve one connected spare lead-in pipes for operational and maintenance purposes.*

## Comment

The IDA requirement is unnecessary and will result in additional cost being incurred.

Lead-in pipes that were connected under previous developer guidelines or Code of Practice cannot be subject to this provision as these were undertaken in a single operator environment or allocated (50% SingTel : 50% StarHub) under the direction of the IDA. SingTel and other operators that have acted in accordance with the previous Codes have a legitimate expectation that the IDA would not subsequently undo or unwind the requirements. SingTel and others have relied on this legitimate expectation and if the new IDA proposal is implemented will suffer damage.

In any event, we would highlight that SingTel's lead-in duct has been determined by the IDA to be critical support infrastructure which SingTel must provide access on IDA determined prices, terms and conditions under the SingTel Reference Interconnection Offer as an essential support facility. As such, FBOs already have access to SingTel's lead-in duct, if required.

It would inefficient and costly to require SingTel (or StarHub) to incur the cost in disconnecting a lead-in pipe. Furthermore, this requirement would be inconsistent with good and sound operating practice as disconnection could result in damage to existing cables.

As for new buildings under the revised COPIF, information on approved building plans is available to the public. In addition IDA could also allow other telecommunication system licensees (who are not TFCC members) access to the CoreNet e-Submission system. Telecommunication system licensees can then make the necessary plans to connect the lead-in pipe during the construction phase of the building.

Finally, the limitation of 1 lead-in duct for reservation is too inflexible. The reservation of spare lead-in pipe for operational and maintenance purpose has to take into account the number of cables serving the building. Arbitrarily restricting a Public Telecommunication Licensee ("PTL") with an Universal Service

Obligation (“USO”) to only one spare lead-in could adversely affect the quality of services to the building.

3.16 Sub-section 11.3.3.3 (under “General Principles relating to the Use of Space and Facilities”)

IDA Proposal

*The IDA requires that each telecommunication system licensee is to ensure that its connections to the lead-in pipes are grouped together and are not obstructing other telecommunication system licensees’ connections to the lead-in pipes. Furthermore, connection to lead-in pipes should proceed in a left-to-right (or right-to-left manner depending on where the previous connection has occurred) and/or in a bottom-up manner (see illustration in Figure 11.1). If a new manhole is to be constructed by a telecommunication system licensee to connect to particular lead-in pipes of a building, the position of the manhole shall be appropriately sited so that it will not block other telecommunication system licensees from connecting their own pipelines to the remaining lead-in pipes.*

Comment

To facilitate connection by different telecommunication system licensees, the lead-in pipe should terminate in two or more groups with a horizontal separation of 100mm apart from each group and within each group the separation of each individual pipe should be 50mm all round. We request that the IDA specifies this in the draft COPIF.