

**TELECOMMUNICATIONS ACT  
(CHAPTER 323)**

**CODE OF PRACTICE FOR  
NEXT GENERATION NATIONAL BROADBAND NETWORK  
NETCO INTERCONNECTION**

In exercise of the powers conferred by section 26(1) (a) to (c), (f) and (g) of the Telecommunications Act, the Info-communications Development Authority of Singapore hereby issues the following Code:

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## 1. PRELIMINARY

### 1.1 Citation and commencement

This Code may be cited as the NetCo Interconnection Code 2009 and shall come into operation on 25 February 2009.

### 1.2 Interpretation

1.2.1 In this Code, unless the context otherwise requires –

“**Act**” means the *Telecommunications Act* (Cap. 323);

“**Ancillary Mandated Services**” means any services ancillary to and reasonably required for the provision of any service (including without limitation any Basic Mandated Service) that is provided using the Network including without limitation the services listed in paragraph 5.2 of Schedule C of the FBO licence issued to the Licensee;

“**Ancillary Mandated Services Qualifying Person**” means any person licensed by IDA to provide facilities-based operations or service-based operations or any broadcasting licensees excluding persons licensed under a class licence pursuant to section 9 of the *Broadcasting Act* (Cap. 28) who intends to acquire or has acquired the provision of any service (including without limitation any Basic Mandated Service) that is provided using the Network;

“**Basic Mandated Services**” means the services listed in paragraph 5.1 of Schedule C of the FBO licence issued to the Licensee;

“**Basic Mandated Services Qualifying Persons**” means persons licensed by IDA to provide facilities-based operations;

“**Building**” means a building or development which has an assigned six-digit postal code by Singapore Post Limited;

“**Business Support System**” or “**BSS**” means the electronic system used to run a party’s business operations and which is typically linked to an OSS in support of end-to-end services;

“**Central Office**” or “**CO**” means a location or building where the Licensee provides access to the passive infrastructure and co-location facilities;

“**Closing Date**” means the date upon which IDA issues a certificate to the OpCo confirming that all conditions precedent in the contract between IDA and the OpCo have been satisfied or waived;

“**Co-location Services**” means the provision of co-location space and services within a CO as specified in the Network Specifications used or to be used for the purposes of connecting to the Network and the provisioning of services over the Network to a significant portion of the End-User base;

“**Commercial Operations Date**” means the date on which the Licensee commences commercial operations;

“**Connection**” means the wired component of the Network to a Physical Address or a Non-Building Address Point;

“**Connectivity Point**” means a point, at a Physical Address or at any Non-Building Address Point, which is used as a distribution point at which Wirelines are terminated and/or cross-connected, including without limitation:

- (a) MDFs in COs, TERs, MDF Rooms, DFs in Outdoor Cabinets, manholes;
- (b) Termination Points in Residential Premises and Non-Residential Premises;
- (c) Termination Points in Non-Building Address Points e.g. bus-stops, lamp posts; and
- (d) Distribution Points;

“**Contract**” means the contract between IDA and the Licensee dated 20 October 2008 entered into pursuant to the RFP;

“**Customised Agreement**” means an agreement for the provision of Mandated Services on prices, terms and conditions that differ from the prices, terms and/or conditions of the ICO;

“**Distribution Frame**” or “**DF**” means a frame at which Wirelines are terminated and where interconnections of such Wirelines are made;

“**Distribution Point**” or “**DP**” means the intermediate point at each floor in a Building where Wirelines from the nearest MDF Room must pass or terminate, en route to the premises on that floor;

“**Duct Diversity**” means the provision of two or more ducts linking two given Connectivity Points, which may or may not run over the same physical route;

“**Duties Related to the Provision of Mandated Services**” has the meaning given to that term in section 6.1(g) of this Code;

“**End-User**” means a business or residential subscriber of any retail telecommunication service in Singapore;

“**End-User Connection**” means a Connection provided to an End-User;

“**End-User Premise**” means a Residential Premise or Non-Residential Premise situated in Singapore and connected islands;

“**Fault Rectification SLG**” has the meaning given to that term in paragraph 13.1(c) of the Appendix to this Code;

“**First Review Date**” has the meaning given to that term in section 12.3(a) of this Code;

“**First Termination Point**” or “**1st TP**” means the network point within an End-User Premise, at which the Network is terminated, that is nearest to the point of entry of that End-User Premise;

“**Geographic Information System**” or “**GIS**” means a system of computer hardware, software and processes designed to efficiently capture, store, update, manipulate, analyse and display geographically referenced information;

“**Government**” means the Government of the Republic of Singapore as a whole including all its Ministries, government departments and Organs of State;

“**High-Rise Residential Building**” means any Residential Building other than a Landed Residential Building;

“**High-Rise Residential Premise**” means any Residential Premise other than a Landed Residential Premise;

“**ICO**” means the standard interconnection offer submitted by the Licensee and approved by IDA;

“**ICO Agreement**” means an agreement entered into between the Licensee and a Qualifying Person for the provision of Mandated Services on the prices, terms and conditions set out in the ICO;

“**IDA**” means the Info-communications Development Authority of Singapore established under the *Info-communications Development Authority of Singapore Act* (Cap. 137A);

“**Landed Residential Building**” or “**Landed Residential Premise**” means a Residential Building that is one of the following types of houses but does not include a landed dwelling-house comprised in a development that is strata subdivided or intended for or capable of strata subdivision: (a) detached house; (b) semi-detached house; (c) terrace house;

“**Layer 1 Redundancy**” means the Layer 1 connectivity which provides redundant Connection or connection between two Connectivity Points;

“**Layer 1 Services**” means Layer 1 connectivity services as specified in the Network Specifications other than that provided as part of Layer 1 Redundancy;

“**Licensee**” refers to OpenNet Pte. Ltd.;

“**Main Distribution Frame**” or “**MDF**” means a frame which is used as the main distribution point for all Wirelines within a Building or building development on which incoming main Wirelines and the local distribution Wirelines are terminated and cross-connected;

“**Main Distribution Frame Room**” or “**MDF Room**” means a room within a Building or building development which is used to house the Main Distribution Frame and associated Plant, or its equivalent;

“**Mandated Services**” means the Basic Mandated Services, the Ancillary Mandated Services and such other services that IDA may specify in the NetCo’s Licence;

“**Mandated Services Information**” has the meaning given to that term in section 2.2 of this Code;

“**Manual**” has the meaning given to that term in section 8.1 of this Code;

“**NBAP Distribution Point**” or “**NBAP DP**” means a termination point at an NBAP whereby Layer 1 Services can be obtained on a per-segment basis, usually served by a dedicated Wireline from the CO to that point, or means a point between a CO and one or more NBAP TP(s) whereby splitting occurs for the purpose of serving this/these NBAP TP(s);

“**NBAP Termination Point**” or “**NBAP TP**” means a termination point at an NBAP whereby Layer 1 Services can be obtained;

“**Network**” means the Next Generation National Broadband Network as described in Schedule A of the FBO licence issued to the Licensee to be installed and implemented by the Licensee;

“**Network Specifications**” means the technical requirements specified in the Contract;

“**Non-Building Address Point**” or “**NBAP**” means a location in mainland Singapore or connected islands other than a Physical Address;

“**Non-Residential Building**” means a Building that contains one or more Non-Residential Premises but excludes all Housing Development Board apartment blocks regardless of height;

“**Non-Residential Premise**” means any premise other than a Residential Premise;

“**Offered Price**” has the meaning given to that term in section 12.7 of this Code;

“**OpCo**” means the operating company appointed by IDA to design, finance, build and operate the active portion of the Network;

“**Operations Support System**” or “**OSS**” means the operations support system used in the maintenance of network inventory, provisioning of services and management of faults;

“**OSS/BSS Connection Service**” means a service offered by the Licensee in which the OSS/BSS of a Qualifying Person is interconnected with the Licensee’s OSS/BSS, for the direct, fully electronic interchange of data relating or relevant to the Qualifying Person;

“**Outdoor Cabinet**” means any outside enclosure or equivalent for terminating and patching Wirelines;

“**Path Diversity**” means the provision of two or more geographically diverse physical routes between two given Connectivity Points;

“**Patching Services**” means patching, splitting and splicing services as specified in the Network Specifications;

“**Physical Addresses**” means Residential Premises and Non-Residential Premises located in mainland Singapore or connected islands;

“**Plant**” means any installation, facility or system used or intended for use in connection with telecommunications, including machinery, equipment, ducts, pipes and Wirelines;

“**Platform**” has the meaning given to that term in section 7.1(b) of this Code;

“**price control period**” has the meaning given to that term in section 12.3 of this Code;

“**price review point**” has the meaning given to that term in section 12.3 of this Code;

“**Provisioning SLG**” has the meaning given to that term in paragraph 13.1(a) of the Appendix to this Code;

“**Qualifying Persons**” means the Basic Mandated Services Qualifying Persons and the Ancillary Mandated Services Qualifying Persons and a “**Qualifying Person**” means any one of the Basic Mandated Services Qualifying Persons or Ancillary Mandated Services Qualifying Persons;

“**Request**” has the meaning given to that term in section 6.1 of this Code;

“**Requesting Party**” has the meaning given to that term in section 6.1(b) of this Code;

“**Request Quota**” has the meaning given to that term in paragraph 11.1(a) of the Appendix to this Code;

“**Residential Building**” means a Building other than a Non-Residential Building;

“**Residential Premise**” means a premise designed or adapted or used for human habitation of a residential nature. In the event of any doubt as to whether a premise is of residential nature, the classification which the Inland Revenue Authority of Singapore applies to that premise for tax purposes shall be final and conclusive;

“**Retail Service Provider**” means any person providing retail services to End-Users using the Network and/or other networks in Singapore;

“**RFP**” means the Request for Proposal for Singapore’s Next Generation National Broadband Network - Network Company (NetCo) issued by IDA on 11 December 2007, including all subsequent addenda and amendments thereto;

“**Service Activation Period**” means the time between a Qualifying Person requesting a service and receiving the requested service from the Licensee;

“**Service Availability SLG**” has the meaning given to that term in paragraph 13.1(b) of the Appendix to this Code;

“**System Change**” has the meaning given to that term in paragraph 15.1 of the Appendix to this Code;

“**Target Prices**” has the meaning given to that term in section 12.5 of this Code;

“**Telecom Competition Code**” means the Code of Practice for Competition in the Provision of Telecommunication Services 2010;

“**Telecommunication Equipment Room**” or “**TER**” means the room within a Building or building development that is used to house Plant for the provision of telecommunication services;

“**Termination Point**” or “**TP**” means any network point within an End-User Premise at which the Network is terminated;

“**Website**” has the meaning given to that term in section 7.1(a) of this Code;

“**Wireline**” means the physical media used to transmit digital or analogue signals, e.g. optical fibre;

“**Wireline Diversity**” means the provision of two or more Wirelines between two given Connectivity Points, which may or may not run over the same physical path and duct; and

“**Working Day**” means 9:00 a.m. to 5:00 p.m. on any day other than a Saturday, Sunday or gazetted public holiday in Singapore.

- 1.2.2 A reference in this Code to a “section” shall, unless otherwise stated, be construed as a reference to the corresponding section in this Code and shall include all further sections within that section (that is, a reference to section 1.2 shall include sections 1.2.1 to 1.2.2 of this Code).

### **1.3 Purpose of this Code**

This Code is intended to specify:

- (a) the pricing, terms and conditions offered by the Licensee for the access and connectivity to the Network;
- (b) the obligations and responsibilities on the Licensee in relation to the services to be offered;
- (c) the obligations and responsibilities of Qualifying Persons in relation to the take up of the Licensee’s services; and
- (d) the enforcement measures that IDA may take against the Licensee and Qualifying Persons for a breach of this Code.

### **1.4 Application of this Code**

This Code applies to the Licensee. Section 4.3, section 6 and section 13 of this Code shall also apply to Qualifying Persons.

### **1.5 Exemptions**

IDA may exempt the Licensee or any Qualifying Person from all or any provisions of this Code in accordance with section 26(5) of the Act. If the Licensee or any Qualifying Person wishes to be exempted from any provision of this Code, the Licensee or such Qualifying Person shall submit a written request to IDA containing the reasons supporting his request. An exemption shall be subject to such terms and conditions as IDA may specify and may, without limitation, be on a one-time basis, temporary, permanent, for a fixed period or effective until the occurrence of a specific event.



## **1.6 Variation, revocation, etc.**

IDA may at any time review, add to, vary or revoke this Code in accordance with section 26(4) of the Act.

## **1.7 Legal effect of this Code**

- 1.7.1 The Licensee and Qualifying Persons are required to comply with this Code in accordance with section 26(7) of the Act. The obligations contained in this Code are in addition to those contained in the Act, other statutes, regulations, directions, licences or codes of practice.
- 1.7.2 If any provision of this Code is held to be unlawful, all other provisions will remain in full force and effect.
- 1.7.3 For the avoidance of doubt, the obligations contained in this Code do not derogate from the Licensee's and Qualifying Person's obligation to comply with the Telecom Competition Code, in particular the minimum duties for interconnection agreements as specified in section 5 of the Telecom Competition Code.

## **2. PROVISION OF MANDATED SERVICES**

- 2.1 At the Qualifying Person's option, the Licensee shall and shall only provide the Mandated Services to a Qualifying Person:
  - (a) on the terms of the ICO; or
  - (b) on the terms of a Customised Agreement negotiated with the Licensee and approved by IDA in accordance with the terms set out in this Code; or
  - (c) on the same terms as an existing Customised Agreement, between the Licensee and a similarly situated Qualifying Person that has been previously approved by IDA in accordance with the terms set out in this Code. For the purposes of this section, a person licensed to provide facilities-based operations, a person licensed to provide services-based operations and a person licensed to provide broadcasting services will not be deemed to be similarly situated.
- 2.2 The Licensee shall also provide a Qualifying Person that requests Mandated Services with any information pertaining to that request that is reasonably necessary to enable the Qualifying Person to:
  - (a) understand the process for the provisioning and use of Mandated Services available to that Qualifying Person; and

- (b) make an informed decision as to the Mandated Services ordered and related options available to the Qualifying Person,  
(“**Mandated Services Information**”).

For the avoidance of doubt, the Licensee shall not be required to provide information on Mandated Services that are not available to that Qualifying Person.

- 2.3 If the Licensee is unable to comply with any request for Mandated Services Information, it shall promptly provide the person requesting the Mandated Services Information with the reason for such non-compliance.
- 2.4 The Licensee may not refuse to provide Mandated Services requested by a person entitled to obtain Mandated Services except where:
  - (a) the person has requested the provision of Mandated Services to a Non-Building Address Point and such request is considered to be unreasonable; or
  - (b) the person has requested the provision of Mandated Services to a location to which the Licensee has not been able to roll-out the Network for reasons beyond its control.
- 2.5 In determining how co-location space within a CO is used, the Licensee shall give priority to Ancillary Mandated Services Qualifying Persons requiring Co-location Services. Where the Licensee cannot offer Co-location Services due to space limitations or for any other legitimate reason, the Licensee shall take reasonable measures to find an alternative solution. The Licensee shall provide details of any such measures taken pursuant to this section upon IDA’s request.
- 2.6 The Licensee may not directly or indirectly restrict or prevent the resale of Mandated Services (with or without transformation) by any person that acquires Mandated Services from the Licensee.
- 2.7 The Licensee may not unreasonably restrict the manner in which a Qualifying Person may utilise Mandated Services.
- 2.8 The Licensee shall terminate the provision of any Basic Mandated Service to any Qualifying Person upon at least 10 Working Days written notice, if the Qualifying Person fails to use or to activate a service to a Retail Service Provider using the Basic Mandated Service within 6 months from the date that the Basic Mandated Service was provided to the Qualifying Person, and the Qualifying Person did not dispute such written notice by the Licensee.

### 3. PRICING OF MANDATED SERVICES

3.1 In specifying any one-time charges and recurring charges applicable to Mandated Services and without prejudice to the other terms and conditions of this Code, the ICO shall comply with the following conditions:

- (a) any one-time charges shall be specified separately from any recurring charges;
- (b) the ICO shall provide a clear breakdown of the items covered by each one-time charge;
- (c) any one-time charge or recurring charge applied to a Landed Residential Premise shall be the same for all Landed Residential Premises;
- (d) any one-time charge or recurring charge applied to a High-Rise Residential Premise shall be the same for all High-Rise Residential Premises; and
- (e) any one-time charge or recurring charge applied to a Non-Residential Premise shall be the same for all Non-Residential Premises.

3.2 Save as otherwise required by IDA under the Contract and subject to the requirements in section 3.1, the ICO may specify different charges for Landed Residential Premises, High-Rise Residential Premises and Non-Residential Premises.

3.3 Subject to the conditions set out in section 3.1, the ICO may specify one-time charges in addition to recurring charges for the provision of Layer 1 Services.

3.4 Subject to the requirements set out in section 3.1:

- (a) the ICO may include a one-time charge for installation of the Network between the MDF to the 1st TP of a Non-Residential Premise where such installation is required for the provision of the requested Layer 1 Services; and
- (b) the ICO may include a one-time charge for installation of the Network to the 1st TP of a Residential Premise where such installation is required for the provision of the requested Layer 1 Services but the ICO shall also make clear that such charge will only be payable if and only if the Licensee was previously refused access to that Residential Premise when the Licensee first rolled out to that Residential Premise.

3.5 In addition to the one-time charges specified in section 3.4, the Licensee may:

- (a) directly charge the owner or management committee of a Non-Residential Building a one-time charge for installation of the Network from the nearest manhole to the MDF of that Non-Residential Building where:
    - (i) such installation is required for the provision of the Mandated Services requested by a Qualifying Person; and
    - (ii) the Licensee was previously refused access to the MDF of that Non-Residential Building;
  - (b) directly charge the owner or management committee of a High-Rise Residential Building a one-time charge for installation of the Network from the nearest manhole to the DP(s) of that High-Rise Residential Building where:
    - (i) such installation is required for the provision of the Mandated Services requested by a Qualifying Person; and
    - (ii) the Licensee was previously refused access to the DP(s) of that Residential Building.
- 3.6 Subject to the requirements set out in section 3.1 and 3.7, the ICO may include:
- (a) one-time charges for the provision of Ancillary Mandated Service; and
  - (b) recurring charges for the provision of Ancillary Mandated Services other than Patching Services.
- 3.7 The ICO may specify one-time and recurring charges for Layer 1 Redundancy provided that:
- (a) any one-time charge for Layer 1 Redundancy between any two Connectivity Points with Duct Diversity and/or Path Diversity shall be calculated on a cost-oriented basis and no other basis;
  - (b) any one-time charge for Layer 1 Redundancy between any two Connectivity Points with Wireline Diversity only shall be no more than the one-time charge for a Layer 1 Service between the same two Connectivity Points; and
  - (c) any recurring charge for Layer 1 Redundancy between any two Connectivity Points (whether with Duct Diversity, Path Diversity and/or Wireline Diversity) shall be no more than the recurring charge for a Layer 1 Service between the same two Connectivity Points.
- 3.8 The ICO may charge for Co-location Services on a per-unit basis and shall be the same for all locations where Co-location Services are provided.
- 3.9 The Licensee may not charge for the provision of Mandated Services Information.

- 3.10 The Licensee may charge a recurring charge for the provision of Mandated Services to a Non-Building Address Point provided that:
- (a) any recurring charge for the segment between the CO and an NBAP DP shall be the same for all such segments; and
  - (b) any recurring charge at an NBAP TP on a per End-User Connection basis shall be the same for a specified split ratio.

The Licensee may charge a one-time charge for the installation of the Network to a Connectivity Point at a Non-Building Address Point provided that such one-time charge shall be calculated on a cost-oriented basis and no other basis.

- 3.11 Where the provision of Mandated Services to Non-Building Address Points requires the Licensee to pay charges to a third party, the Licensee may pass on those same charges to the Qualifying Person requesting the Mandated Services provided that they are itemised separately from any of the Licensee's own one-time and recurring charges and are no more than the actual charges charged by the third party.
- 3.12 Save as expressly provided for in the terms of this Code, the Licensee may not offer any discounted pricing or other form of differentiated pricing of Mandated Services on any basis except where approved by IDA. Any agreement that includes the terms of an offer approved by IDA under this section shall constitute a Customised Agreement which shall be published and available to similarly-situated Qualifying Persons in accordance with and subject to the terms of this Code.

#### 4. DURATION OF THE ICO AND THE ICO AGREEMENT

- 4.1 The Licensee shall offer the ICO from the date as directed by IDA, and the ICO (as amended from time to time) shall remain valid until otherwise directed by IDA.
- 4.2 An ICO Agreement shall be effective until the earlier of:
- (a) the expiry of the Licensee's obligation to offer the ICO under section 4.1 in accordance with a direction by IDA;
  - (b) any exemption granted by IDA to the Licensee from its obligation under this Code to offer the ICO; or
  - (c) any termination of the ICO Agreement in accordance with the terms of the ICO Agreement.
- 4.3 The prices, terms and conditions contained in any ICO Agreement will be effective for the duration of the ICO Agreement unless either:

- (a) the parties to the ICO Agreement agree to modify their ICO Agreement, in which case the parties' ICO Agreement will be treated as a Customised Agreement subject to the approval of IDA; or
  - (b) IDA requires the Licensee to modify any provision of the ICO, or approves a modification to the ICO proposed by the Licensee, in which case the parties to the ICO Agreement must amend their ICO Agreement to conform to the modifications in the ICO.
- 4.4 The Licensee shall promptly provide IDA with a copy of:
- (a) any ICO Agreement that it enters into;
  - (b) any Customised Agreement arising under section 4.3(a); and
  - (c) any amended ICO Agreement amended under section 4.3(b).

## 5. MODEL CONFIDENTIALITY AGREEMENT

- 5.1 Within 15 days of being required to do so by IDA, the Licensee shall submit a Model Confidentiality Agreement to IDA for approval. The Model Confidentiality Agreement shall contain provisions, which shall be no broader than necessary to protect the legitimate commercial interests of each party that enters into the Model Confidentiality Agreement, governing preservation of proprietary or commercially sensitive information disclosed by either party during any negotiation related to the adoption of a Customised Agreement. This shall include provisions barring either party from disclosing confidential information to Affiliates or third parties, except to the extent necessary to adopt and implement the Customised Agreement under negotiation.
- 5.2 IDA may provide 10 days for public comment on the proposed Model Confidentiality Agreement and, within 21 days from the submission of the proposed Model Confidentiality Agreement, will accept, reject or require modification to the proposed Model Confidentiality Agreement. The Licensee will have 7 days from the date IDA provides notification to submit a revised proposed Model Confidentiality Agreement that incorporates the modifications required by IDA. IDA will have 7 days from the date on which it receives the revised proposed Model Confidentiality Agreement to approve the Model Confidentiality Agreement or direct the Licensee to incorporate specific language.
- 5.3 The Licensee shall notify IDA and obtain IDA's written approval before making any changes to its Model Confidentiality Agreement.

## 6. CUSTOMISED AGREEMENTS

6.1 If the Licensee receives a written request to negotiate a Customised Agreement from any Qualifying Person or such other person entitled to obtain Mandated Services as IDA may direct (a “**Request**”):

- (a) The Licensee shall provide a copy of the Request to IDA within 3 days.
- (b) The Licensee and the person that submitted the Request (the “**Requesting Party**”) shall enter into a confidentiality agreement governing the negotiation process. If they fail to agree to a confidentiality agreement within 7 days of the receipt of the Request, both parties shall adopt the Model Confidentiality Agreement approved by IDA under section 5.
- (c) Unless the Licensee and the Requesting Party agree otherwise, they shall begin negotiations for a Customised Agreement within 7 days after entering into a confidentiality agreement.
- (d) The Licensee and the Requesting Party have a duty to negotiate in good faith. The Licensee and the Requesting Party may agree that the Licensee will provide the Mandated Services on prices, terms and conditions that differ from those in the ICO.
- (e) At the time it submits its Request, the Requesting Party may require the Licensee to provide the requested Mandated Services pursuant to the prices, terms and conditions of the ICO, pending the outcome of the requested negotiations. The Licensee and the Requesting Party shall negotiate appropriate arrangements governing the transition from the ICO to the prices, terms and conditions of their Customised Agreement.
- (f) For the purposes of facilitating the Licensee’s and the Requesting Party’s negotiation in agreeing on a Customised Agreement, the parties may request IDA to provide conciliation in accordance with section 13.
- (g) The Licensee and the Requesting Party may enter into a Customised Agreement on any mutually agreeable price, term and condition, provided that they do not unreasonably discriminate against any other Qualifying Person and the terms of the Customised Agreement are approved by IDA. IDA will not approve a Customised Agreement where the Customised Agreement fails to fulfil the under-mentioned duties (“**Duties Related to the Provision of Mandated Services**”):
  - (i) Duty to Establish Compensation Agreement

The Customised Agreement shall establish compensation arrangements governing the provision of Mandated Services.

(ii) Duty to Provide Non-discriminatory Mandated Services Quality

Unless the parties expressly agree otherwise, the Customised Agreement shall provide that the Licensee shall take measures to ensure that, on a service-by-service basis, the Mandated Services that the Licensee provides to a Requesting Party pursuant to any Customised Agreement are at least equivalent to the quality that the Licensee provides to any other Requesting Party.

(iii) Duty to Prevent Technical Harm to Network

The Customised Agreement shall provide that the Licensee and Requesting Party shall take reasonable measures to ensure that they will not cause physical or technical harm to each other's network.

(iv) Duty to Provide Billing Information

The Customised Agreement shall provide that the Licensee and Requesting Party shall provide each other with information within their possession that is necessary to allow them to provide accurate and timely billing to each other and to any other relevant third parties.

(v) Duty to Preserve Confidential Information Provided by Other Licensees

The Customised Agreement shall provide that the Licensee and Requesting Party shall:

- (1) protect from disclosure any confidential or proprietary information provided by the other in the course of negotiating or implementing the Customised Agreement;
- (2) use such information only for the provision of the specific Mandated Services requested; and
- (3) adopt appropriate procedures to ensure that the information of the other Party is not used for the development or marketing of other telecommunication services or equipment by either party or third parties.

(vi) Duty to Obtain IDA's Approval for Suspension or Termination



- (1) The Customised Agreement shall include a statement of the bases, if any, for which unilateral suspension or termination of the Customised Agreement will be permitted. This may include situations where:
  - (A) one party has materially breached the Customised Agreement including, but not limited to, repeated failure to make required payments;
  - (B) one party has become insolvent;
  - (C) continued operation of the Customised Agreement would be unlawful; or
  - (D) continued operation of the Customised Agreement would pose an imminent threat to life or property.
- (2) The Customised Agreement shall also provide that any unilateral suspension or termination, unless by operation of law, will only become effective when, and to the extent that, it is approved by IDA.

(vii) Duty to Amend

The Customised Agreement shall provide that the Licensee and the Requesting Party shall amend the Customised Agreement to incorporate any additional or modified Duties Related to the Provision of Mandated Services as required by IDA during the term of the Customised Agreement.

(viii) Duty to Comply with Singapore Law

The Customised Agreement shall provide that it will be governed by the laws of the Republic of Singapore.

- (h) The Customised Agreement shall specify that it will be submitted to IDA and will not become effective until approved by IDA. If IDA takes no action within 21 days after the agreement is submitted to it, the agreement will be deemed approved.
- (i) In any case in which IDA rejects a Customised Agreement, it will direct the Licensees to make the necessary changes. In such cases, the Licensee shall make the required changes, unless both parties agree to withdraw the Customised Agreement.

- (j) If the Licensee and Requesting Party fail to voluntarily reach agreement regarding the Customised Agreement within 90 days of the date on which the Request is submitted, either party may request IDA to resolve the dispute pursuant to section 13.4.
  - (k) Provided that none of the grounds specified in section 6.1(g) apply and the parties do not unreasonably discriminate against any other Qualifying Person, and should IDA decide to intervene, IDA will not re-open any issue on which the parties have reached agreement. Instead, the dispute resolution will be limited to those issues on which the parties are unable to reach agreement. IDA retains full discretion to impose any solution that it deems appropriate (including solutions not advocated by either party).
  - (l) Within 15 days of the date on which IDA issues its decision, the Licensee shall submit to IDA a Customised Agreement that complies with the decision. IDA will have 15 days to either approve the Customised Agreement or to require the Licensee to amend the agreement by including provisions specified by IDA that fully implement its decision.
- 6.2 A Customised Agreement may be modified at any time by mutual Agreement of the parties. If the parties to a Customised Agreement agree to modify the terms of their Customised Agreement, the Licensee shall provide IDA with a copy of the amended Customised Agreement for IDA's approval, and that amended Customised Agreement shall not be effective until approved by IDA. If IDA takes no action within 21 days after the agreement is submitted to it, the agreement will be deemed approved by IDA. In any case in which IDA rejects a modification, it shall direct the Licensee to make the necessary changes. The Licensee shall make the necessary changes unless both the Licensee and the Requesting Party agree to withdraw the modification.
- 6.3 A Customised Agreement may be suspended or terminated at any time by mutual agreement of the Licensee and the Requesting Party. Upon any such suspension or termination, the Licensee must immediately notify IDA in writing and provide the reasons for the suspension or termination.
- 6.4 The ICO, all Customised Agreements and ICO Agreements entered into by the Licensee will be published by IDA. However, IDA may, on its own motion, or at the request of either of the Licensee or the other party to the Customised Agreement or ICO Agreement (as the case may be), withhold from publication any portion of the Customised Agreement or ICO Agreement if IDA determines that it contains proprietary or commercially sensitive information.

7. PROVISION OF A WEBSITE AND ON-LINE PROVISIONING PLATFORM

7.1 Within 2 years from the Closing Date, the Licensee shall provide a website and on-line provisioning platform relating to the Mandated Services as described below:

- (a) the Licensee shall create and host a publicly accessible, user-friendly website for the provision of information (which shall not include pricing information) relating to the Mandated Services (the “**Website**”). The Website shall allow End-Users and owners or management committees of Buildings to verify the Licensee’s roll-out of the Network and the locations to which the Licensee was (i) granted access, and (ii) denied access, during its planned roll-out of the Network; and
- (b) the Licensee shall provide a real-time, on-line information and ordering platform (the “**Platform**”) which can be accessed by the persons specified in section 7.2 via the Website and directly through an open standards interface to the Licensee’s OSS and BSS. The Platform shall provide access to Mandated Services Information, including without limitation, the descriptions of the services available, the technical specifications of the Wireline being offered (such as for dark fibre, the threshold of loss, attenuation co-efficient, the mode of the fibre and its dispersion, where applicable), the prices, terms and conditions thereof, and the provision of fault repair and any other commercial and technical services and enable ordering of Mandated Services on an unbundled basis.

7.2 The Licensee shall provide the following persons with secured password-protected access to the Platform:

- (a) all Qualifying Persons;
- (b) any other person entitled to the provision of Mandated Services as IDA may require; and
- (c) IDA,

verified by an appropriate user identification and authentication mechanism implemented by the Licensee provided that in the case of each person specified in 7.2(a) and 7.2(b), that person agrees to keep all information accessed through the Platform confidential.

7.3 The Licensee shall ensure that the Platform complies with and conforms to the requirements specified in the Network Specifications.

- 7.4 The Licensee shall ensure that all information provided on the Website and the Platform is readily accessible, clear and easily navigable by their respective authorised users.
- 7.5 The Licensee shall provide IDA, and such other government agencies as may be stipulated by IDA, with access to the Licensee's GIS.

## **8. MANUAL RELATING TO THE ORDERING AND PROVISIONING OF MANDATED SERVICES**

- 8.1 The Licensee shall prepare and keep updated a manual setting out, at minimum, the following information (the "**Manual**"):
- (a) how a person may access Mandated Services Information including details of the persons who are entitled to access to Mandated Services Information, any conditions of access to the Mandated Services Information and how satisfaction of those conditions will be verified;
  - (b) how a person may order the Mandated Services including details of the persons who are entitled to order the Mandated Services, any conditions imposed before a person may order Mandated Services, how satisfaction of those conditions will be verified;
  - (c) the terms on which the Mandated Services may be purchased, the locations to which the Mandated Services will be available, the process by which a person may enter into an ICO Agreement, negotiate a Customised Agreement, or enter into an existing Customised Agreement between the Licensee and a similarly situated person; and
  - (d) the process by which any disputes with the Licensee regarding the provision of Mandated Services may be resolved including details of the process for requesting conciliation by IDA.
- 8.2 The Licensee shall publish a downloadable version of the Manual on the Website.

## **9. AUDIT OBLIGATIONS**

- 9.1 For the purposes of the Licensee's audit obligations under this section, the Licensee shall keep proper records of all responses to requests for Mandated Services Information made by:
- (a) any person who has entered into an ICO Agreement with the Licensee; and

- (b) any person who has entered into a Customised Agreement with the Licensee, for at least 12 months after the termination of that person's ICO Agreement or Customised Agreement (as the case may be).
- 9.2 The Licensee shall appoint an independent auditor to verify and report on the Licensee's partial or non-compliance with its obligations regarding the provision of Mandated Services Information under this Code:
  - (a) every 12 months; and
  - (b) upon IDA's request, provided that there shall not be more than a total of two audits in any year.
- 9.3 The Licensee shall provide the independent auditor with any records and other information that may be requested by the independent auditor to verify the Licensee's partial or non-compliance with its obligations regarding the provision of Mandated Services Information under this Code.
- 9.4 The Licensee shall provide IDA with a copy of the independent auditor's written report within 30 days of completion of the audit.

## **10. REVIEW AND MODIFICATION OF THE ICO TERMS OTHER THAN PRICING**

- 10.1 Without limiting any other powers of IDA to amend this Code, IDA may review and require the Licensee to modify the terms and conditions of the ICO other than the price(s) of existing Mandated Services at any appropriate time, including upon any of the following events:
  - (a) every 3 years from the date that the ICO was first offered by the Licensee;
  - (b) following any review and amendment of the Telecom Competition Code;
  - (c) following any review and amendment of the Act;
  - (d) upon the reasonable request of the Licensee; and
  - (e) upon the emergence of new technologies or enhancement of existing technologies which may be applied to facilitate or improve provision of the Mandated Services or result in the existence of new services which IDA may require the Licensee to provide as new Mandated Services.
- 10.2 In the absence of any direction to the contrary by IDA, the Licensee shall follow the process for review and modification as set out in the section 11 and the Licensee shall comply with its obligations thereunder.

- 10.3 Following any modification of the ICO (including those made pursuant to sections 10 and 12) that has been approved by IDA, the Licensee shall:
- (a) amend every ICO Agreement that has been validly executed to conform to the modification(s) in the ICO; and
  - (b) promptly provide IDA with a copy of any and all ICO Agreements amended in accordance with section 10.3(a) above.

## **11. IDA REVIEW PROCEDURES**

- 11.1 Upon the exercise of IDA's discretion under section 10.1 and in the absence of any direction to the contrary by IDA, the following process shall apply.
- 11.2 IDA shall issue a direction to the Licensee requesting the Licensee to submit any proposed modifications to the ICO.
- 11.3 Within 60 days of IDA's direction under section 11.2, the Licensee shall submit any proposed modifications it may have to IDA for approval.
- 11.4 IDA will review the ICO and any modifications to the ICO that are proposed by the Licensee.
- 11.5 IDA will generally seek public comments regarding the ICO, which must be filed within 30 days from the date on which IDA seeks comments. Following receipt of all public comments received, IDA may take up to 60 days to complete its review.
- 11.6 If IDA rejects any modifications of the ICO proposed by the Licensee, it will provide the Licensee with a written explanation of the basis for the rejection and the modifications required to bring the ICO into compliance with IDA's requirements.
- 11.7 The Licensee will have 30 days from the date on which IDA provides any written explanation under section 11.6 to submit a revised ICO that incorporates the modifications required by IDA.
- 11.8 If IDA deems necessary, IDA may seek public comments on the revised ICO, which must be filed within 30 days from the date on which IDA seeks comments. Following receipt of all public comments received, IDA may take up to 60 days to complete its review and approve the revised ICO or require the Licensee to incorporate specific language.
- 11.9 The Licensee must offer the revised ICO within 30 days from the date of IDA's final approval or direction under section 11.8.

- 12. REVIEW AND MODIFICATION OF THE PRICES UNDER THE ICO**
- 12.1 Unless IDA directs otherwise, the provisions of this section 12 set out the price control arrangements which would be used by IDA to review and modify the prices under the ICO.
- 12.2 Subject to the terms of this section 12, the Licensee may not increase the price(s) of the Mandated Services under the ICO.
- 12.3 Without limiting IDA’s right to modify the terms of the ICO under section 10, and unless otherwise agreed by the Licensee and IDA, IDA shall review and may require the Licensee to modify the price(s) of Mandated Services set out in the ICO:
- (a) on the “**First Review Date**” which shall mean the earlier of:
    - (i) the date five years after the date that the ICO was first offered by the Licensee; or
    - (ii) at such time as IDA may consider appropriate,  
provided that the First Review Date shall not be earlier than three years from the date that the ICO was first offered by the Licensee; and
  - (b) every three years following the First Review Date,
- where each of (a) and (b) shall be referred to as a “**price review point**” and the period between each price review point shall be referred to as a “**price control period**”.
- 12.4 To assist IDA in its review, the Licensee shall provide all necessary information and documentation where requested by IDA.
- 12.5 IDA shall specify the pricing methodology which IDA will use to review the prices of Mandated Services offered under the ICO at each price review point and determine the prices to apply at the end of the price control period immediately following each price review point (the “**Target Prices**”).
- 12.6 If a particular Target Price determined by IDA at the First Review Date is higher than the corresponding price offered by the Licensee at the First Review Date, the Licensee shall not increase the price offered under the ICO at any time before the next price review point.
- 12.7 If, at any price review point after the First Review Date, a particular Target Price determined by IDA at that price review point is higher than the corresponding price offered by the Licensee at that price review point (the “**Offered Price**”), the Licensee shall, subject to sections 12.9 and 12.10:

- (a) where the Target Price is less than or equal to 10% higher than the Offered Price, immediately increase the Offered Price to match the Target Price;
  - (b) where the Target Price is more than 10% higher than the Offered Price:
    - (i) from the date one year after the price review point, increase the Offered Price by no more than half the difference between the Offered Price and the corresponding Target Price; and
    - (ii) from the date two years after the price review point, increase the Offered Price no more than to match the Target Price.
- 12.8 If a particular Target Price determined by IDA at any price review point, including the First Review Date, is lower than the Offered Price, the Licensee shall subject to sections 12.9 and 12.10:
- (a) where the Target Price is less than or equal to 10% lower than the Offered Price, immediately decrease the Offered Price to match the Target Price;
  - (b) where the Target Price is more than 10% lower than the Offered Price:
    - (i) immediately lower the Offered Price by no less than half the difference between the Offered Price and corresponding Target Price; and
    - (ii) at the date one year after the price review point, decrease the Offered Price by no less than half of the remaining difference between the Offered Price and corresponding Target Price; and
    - (iii) at the date two years after the price review point, decrease the Offered Price to be no higher than the Target Price.
- 12.9 The Licensee shall file any changes to the prices of Mandated Services offered in the ICO to be made in accordance with sections 12.7 or 12.8 of this Code with IDA for IDA's approval prior to effecting such changes in the ICO.
- 12.10 IDA will either accept or reject the proposed changes to the Offered Prices as filed in accordance with section 12.9 of this Code within 30 days and will provide a statement of the basis of any rejection.
- 12.11 The Licensee shall publish any changes to the prices of Mandated Services offered in the ICO on its Platform within 7 days of IDA's approval under section 12.10 of this Code. For the avoidance of doubt, the Licensee shall also comply with its obligations under sections 4.3(b) and 4.4(c) of this Code.



### **13. CONCILIATION AND IDA DETERMINATION**

- 13.1 The Licensee and any person entitled to obtain Mandated Services from the Licensee may jointly request IDA to provide conciliation to assist them in resolving any dispute arising in connection with the provision of Mandated Services by the Licensee, including without limitation disputes arising out of:
- (a) the negotiation of a voluntary Customised Agreement;
  - (b) the implementation of a Customised Agreement; and
  - (c) the implementation of an ICO Agreement.
- 13.2 The parties requesting conciliation shall submit to IDA a joint statement describing the disputed issues and the position of each party on the disputed issues.
- 13.3 IDA will provide conciliation at its discretion. IDA's role in any conciliation will be to assist the parties to reach a mutually acceptable solution. IDA will not advocate any specific position or impose any solution on the parties.
- 13.4 In the event that the parties fail to reach agreement on matters relating to the requirements of this Code or the Act including, without limitation, matters relating to, the negotiation or agreement of a Customised Agreement or the implementation of an ICO Agreement or a Customised Agreement, the matter may be determined by IDA.
- 13.5 If IDA decides to determine a dispute under section 13.4:
- (a) the procedures set out in paragraphs 3, 4.2 to 4.5, 4.7 to 4.8, 5 and 6 of the Advisory Guidelines Governing Requests for Dispute Resolution between Licensees under Sub-section 11.3 of the Telecom Competition Code, as may be amended from time to time, will generally apply, unless otherwise advised by IDA; and
  - (b) IDA's decision shall be binding on all parties concerned and for the avoidance of doubt, IDA shall determine such disputes in its capacity as the regulatory authority and not as an arbitrator.
- 13.6 IDA reserves the right to levy a fee for work undertaken in this respect.

### **14. MINIMUM REQUIREMENTS FOR ICO**

- 14.1 In accordance with and in addition to the obligations set out in this Code, the Licensee shall offer to provide Mandated Services to Qualifying Persons on such ICO terms and conditions as required in Appendix 1 to this Code.

**15. ENFORCEMENT MEASURES FOR BREACH OF CODE**

In the event that IDA concludes that the Licensee or a Qualifying Person has contravened any provision of this Code, IDA may take such enforcement measures as it considers appropriate under section 8 of the Act.

## APPENDIX 1

### MINIMUM REQUIREMENT FOR ICO

#### 1. PREAMBLE

- 1.1 This Appendix describes the terms and conditions on which the Licensee shall offer to provide Mandated Services to Qualifying Persons. The Licensee shall include these terms and conditions in its ICO.
- 1.2 Any defined terms used in this Appendix shall have the meaning given to them in the NetCo Interconnection Code 2009.

#### 2. SCOPE OF ICO

- 2.1 The ICO shall, subject to the requirements set out in this Appendix specify the prices, terms and conditions on which the Licensee will provide the Mandated Services and the Mandated Services Information to Qualifying Persons to ensure end-to-end connectivity to the Network of any Mandated Service requested by a Qualifying Person.
- 2.2 Failure by the Licensee to specify the prices, terms and conditions of any requirements necessary to ensure end-to-end connectivity to the Network of any Mandated Service shall not affect the Licensee's obligation to provide or fulfil such requirements and the costs of providing or fulfilling such requirements shall be borne by the Licensee unless expressly accounted for in the ICO. Unless otherwise approved by IDA, the Licensee shall not require any additional terms and conditions which the Licensee has not expressly accounted for in the ICO.
- 2.3 The ICO shall:
  - (a) contain a comprehensive and complete written statement of the prices, terms and conditions, on which the Licensee is prepared to provide the Mandated Services to any Qualifying Person (including a complete technical description of the Mandated Services offered, the procedures that will be used to order and provide such Mandated Services and the timeframes that will apply to the ordering and provisioning of Mandated Services);
  - (b) be clearly written and organised in a logical and consistent manner;
  - (c) be modular, allowing a Qualifying Person to purchase only those Mandated Services that it wants to obtain;
  - (d) be sufficiently detailed to enable a Qualifying Person that is willing to accept its prices, terms and conditions to obtain the Mandated Services without having to engage in negotiations with the Licensee; and
  - (e) be available in electronic format.

- 2.4 In addition to the terms specified in this Appendix, the terms of the ICO shall incorporate, comply and be consistent with any terms of the NetCo Interconnection Code 2009 that relate to the Licensee's obligation to offer Mandated Services under the ICO, including without limitation:
- (a) the nature and description of the Mandated Services and Mandated Services Information to be offered under the ICO;
  - (b) the pricing of Mandated Services;
  - (c) the definition of Qualifying Persons entitled to obtain Mandated Services and Mandated Services Information under the ICO;
  - (d) the locations to which Mandated Services may be provided under the ICO;
  - (e) the obligation to provide an on-line Platform through which Qualifying Persons may obtain Mandated Services Information and order Mandated Services;
  - (f) the duration of any ICO Agreement;
  - (g) the circumstances in which the terms of an ICO Agreement may and shall be modified; and
  - (h) the provision of information to IDA in connection with the ICO, or any ICO Agreement.
- 2.5 The ICO shall clearly state that:
- (a) the acceptance by a Qualifying Person of the prices, terms and conditions of the ICO shall result in a binding agreement between the Licensee and the Qualifying Person, which shall govern the provision of any and all Mandated Services requested and ordered by the Qualifying Person; and
  - (b) for the avoidance of doubt, a Qualifying Person that has entered into an ICO Agreement need not enter into further ICO Agreements in respect of each subsequent request or order for Mandated Services.
- 2.6 The ICO shall state that the Licensee and a Qualifying Person may agree to vary the terms of the ICO but only in accordance with the process set out in the NetCo Interconnection Code 2009, and any resulting agreement will be a Customised Agreement subject to IDA's approval.
- 2.7 The ICO shall state that where the parties enter into an ICO Agreement they may subsequently agree to modify the terms of their ICO Agreement, in which case the parties' ICO Agreement will be treated as a Customised Agreement subject to the approval of IDA.
- 2.8 The ICO shall state that any Customised Agreement approved by IDA, howsoever arising, shall be published by IDA (save that IDA may withhold from publication any portion of the Customised Agreement if IDA determines, at its own motion or at the request of either party, that it contains proprietary or commercially sensitive information) and that any other similarly situated Qualifying Person may request the provision of Mandated Services on the same terms contained therein.

### **3. AMENDMENTS PURSUANT TO IDA'S DIRECTION**

- 3.1 The ICO shall state that IDA may review and may direct the amendment of the prices, terms and conditions of the ICO in accordance with the process set out in the NetCo Interconnection Code 2009. In the event that IDA directs any changes to be made to the ICO, the Licensee and the Qualifying Person shall amend their ICO Agreement in accordance with any such directed changes to the ICO.

### **4. INTERPRETATION**

- 4.1 The ICO shall include recitals which provide historical and legal context to assist understanding by future readers of the ICO.
- 4.2 The ICO shall include a glossary of all definitions used, using defined terms from the NetCo Interconnection Code 2009 wherever possible.

### **5. BASIC MANDATED SERVICES**

- 5.1 The ICO shall specify the prices, terms and conditions for the provision of Layer 1 Services to both Residential Premises and Non-Residential Premises in accordance with and subject to the requirements set out in this paragraph 5.
- 5.2 The ICO shall offer the provision of Layer 1 Services to both Residential Premises and Non-Residential Premises:
- (a) on a per End-User Connection basis:
    - (i) for each access technology supported by the Network. The pricing for each access technology may be different taking into consideration additional components, such as those required to achieve splitting; and
    - (ii) the Qualifying Persons shall not be unreasonably restricted from locating any active equipment/components at intermediate points between the two end points required by the Qualifying Persons to achieve the split ratios as stipulated in the terms and conditions of the Layer 1 Services. Such intermediate points shall, at the minimum, be offered at the MDF Rooms, TERs or equivalent; and
  - (b) between any Connectivity Points within the Network deployed by the Licensee, such as:
    - (i) from an MDF in a CO to the 1st TP of a Residential Premise or a Non-Residential Premise;
    - (ii) from an MDF in a CO to an NBAP TP;
    - (iii) from an MDF in a CO to an MDF in an MDF Room;
    - (iv) from an MDF in a CO to an MDF in an Outdoor Cabinet;
    - (v) from an MDF in an MDF Room to the 1st TP of a Residential Premise or a Non-Residential Premise;

- (vi) from an MDF in an Outdoor Cabinet to the 1st TP of a Residential Premise or a Non-Residential Premise;
  - (vii) from an MDF in a CO to an MDF in another CO;
  - (viii) from an MDF in an MDF Room to a fibre-to-the-building node at a TER Room/void deck;
  - (ix) from a fibre-to-the-building node to a DP;
  - (x) from an MDF in a CO to an NBAP DP serving an NBAP TP; and
  - (xi) from an NBAP DP to an NBAP TP.
- 5.3 The ICO shall state that as part of any provision of Basic Mandated Services, the Licensee shall also provide the Basic Mandated Services Qualifying Person with Mandated Services Information.
- 5.4 The ICO shall state that the Basic Mandated Services Qualifying Person must use or activate a service to a Retail Service Provider using the Layer 1 Service within 6 months from the date that the Layer 1 Service was provided to the Basic Mandated Services Qualifying Person.
- 5.5 The ICO shall not include any one-time charges for the installation of the Network other than those permitted by the terms of the NetCo Interconnection Code 2009.
- 5.6 The ICO shall not include any recurring charges for Layer 1 Services other than that specified in paragraphs 5.7, 5.8 and 5.9.
- 5.7 Subject to the requirements set out in the NetCo Interconnection Code 2009, the ICO must clearly state the following recurring charges for Non-Residential Premises:
- (a) A monthly charge for the provision of Layer 1 Services for the segment between the CO and the MDF, where such charge may not be higher than S\$2,500;
  - (b) A monthly charge for the provision of Layer 1 Services per End-User Connection (for each of the supported access technologies proposed pursuant to the Network Specifications) for a Wireline split ratio of 1:16, which shall be no more than S\$75; and
  - (c) Monthly charges for the provision of Layer 1 Services per End-User Connection for Wireline split ratios other than 1:16, which the Licensee may propose.
- 5.8 Subject to the requirements set out in the NetCo Interconnection Code 2009, the ICO shall clearly state the following recurring charges for Residential Premises:
- (a) A monthly charge for the provision of Layer 1 Services for the following segments:
    - (i) between the CO and the MDF, where such charge shall be the same as that charged for the same segment for Non-Residential Premises; and

- (ii) between the MDF and the 1st TP;
  - (b) A monthly charge for the provision of Layer 1 Services per End-User Connection (for each of the supported access technologies proposed pursuant to the Network Specifications) for a Wireline split ratio of 1:24, which shall be no more than S\$25; and
  - (c) Monthly charges for the provision of Layer 1 Services per End-User Connection for Wireline split ratios other than 1:24, which the Licensee may propose.
- 5.9 Subject to the requirements set out in the NetCo Interconnection Code 2009, the ICO shall clearly state the monthly charge for the provision of Layer 1 Services for the segment between a CO and another CO.
- 5.10 The ICO shall specify any discounted pricing or other form of differentiated pricing of Basic Mandated Services which has been approved by IDA. Any agreement that subsequently includes an offer of any discounted or differentiated pricing approved by IDA shall constitute a Customised Agreement.
- 5.11 The ICO shall state that the Licensee shall take measures to ensure that the Basic Mandated Services that the Licensee provides to a Basic Mandated Services Qualifying Person shall be equivalent to the quality that the Licensee provides to any other Basic Mandated Services Qualifying Person.

## **6. CONNECTIVITY POINTS**

- 6.1 The ICO shall state that access to the Licensee's infrastructure will be offered at any technically feasible Connectivity Point in order to access Mandated Services provided by the Licensee. At a minimum, the Licensee shall offer to allow interconnection at the following Connectivity Points:
- (a) MDFs at the CO;
  - (b) DFs at TERs/MDF Rooms of Residential Premises and Non-Residential Premises;
  - (c) 1st TPs of Non-Residential Premises and Residential Premises; and
  - (d) any other Connectivity Points that the Licensee may propose.
- 6.2 The ICO shall state that the following information will be provided to Qualifying Persons and updated on a monthly basis via the Licensee's Platform, as part of the Mandated Service Information:
- (a) a list and description of the physical locations at which a Qualifying Person may physically interconnect with the Network and the means by which interconnection may be achieved;
  - (b) a description of the physical interfaces to the Network that are necessary to allow physical interconnection and the procedures to be used if the Licensee chooses to alter those interfaces; and

- (c) where applicable, information regarding the availability of Mandated Services, including the address of each CO, the geographical boundaries of the area served by each CO, the extent to which the access network is available at each Connectivity Point.
- 6.3 The ICO shall state that the Licensee shall be responsible for the provisioning and maintenance of the Licensee's network and network facilities on its "side" of the Connectivity Point, including all associated costs of such provisioning and maintenance.

## **7. ANCILLARY MANDATED SERVICES**

- 7.1 The ICO shall specify the prices, terms and conditions that apply to the provision of Ancillary Mandated Services. For the provision of OSS/BSS Connection Services, Patching Services, Co-location Services and Layer 1 Redundancy, the ICO shall comply with the terms set out in this paragraph 7.
- 7.2 Failure by the Licensee to specify the prices, terms and conditions of any requirements necessary to ensure end-to-end connectivity to the Network of any Mandated Service shall not affect the Licensee's obligation to provide or fulfil such requirements and the costs of providing or fulfilling such requirements shall be borne by the Licensee unless expressly accounted for in the ICO. Unless otherwise approved by IDA, the Licensee shall not require any additional terms and conditions which the Licensee has not expressly accounted for in the ICO.
- 7.3 The ICO shall state that as part of any provision of Ancillary Mandated Services, the Licensee shall also provide the Ancillary Mandated Services Qualifying Person with Mandated Services Information that is ancillary to and reasonably required for the provision and use of the Ancillary Mandated Services.
- 7.4 The ICO shall specify any discounted pricing or other form of differentiated pricing of Ancillary Mandated Services which has been approved by IDA. Any agreement that subsequently includes an offer of any discounted or differentiated pricing approved by IDA shall constitute a Customised Agreement.
- 7.5 The ICO shall state that the Licensee shall take measures to ensure that the Ancillary Mandated Services that the Licensee provides to an Ancillary Mandated Services Qualifying Person shall be equivalent to the quality that the Licensee provides to any other Ancillary Mandated Services Qualifying Person.

## **OSS/BSS CONNECTION SERVICES**

- 7.6 The ICO shall specify the prices, terms and conditions that apply to the provision of OSS/BSS Connection Services, including without limitation the terms required by paragraph 7.7.
- 7.7 Subject to the conditions set out in the NetCo Interconnection Code 2009, the ICO may provide for one-time charges and recurring charges for the provision of OSS/BSS Connection Services.



## PATCHING SERVICES

- 7.8 The ICO shall specify the prices, terms and conditions that apply to the provision of Patching Services, including without limitation the terms required by paragraphs 7.9 to 7.10 of this Appendix.
- 7.9 The ICO shall state that the Licensee shall be responsible for:
- (a) patching of Wireline Connections as required throughout the Network in accordance with the contractual instruction and specific guidance from the Ancillary Mandated Services Qualifying Person;
  - (b) liaising with the Ancillary Mandated Services Qualifying Person and obtaining all relevant information regarding the Connectivity required;
  - (c) the provision and ownership of all splitters deployed throughout the Network;
  - (d) splicing fibres as necessary under the contractual instruction and specific guidance from the Ancillary Mandated Services Qualifying Person; and
  - (e) the ongoing completion, documentation and update of comprehensive testing of all splices and patches made on its Network.
- 7.10 The ICO shall specify the process to be followed by the Licensee for ensuring that Patching Services requested by an Ancillary Mandated Services Qualifying Person are carried out.

## CO-LOCATION SERVICES IN THE CO

- 7.11 The ICO shall specify the prices, terms and conditions that apply to the provision of Co-location Services, including without limitation the terms required by paragraphs 7.12 to 7.16 of this Appendix.
- 7.12 The ICO shall, in accordance with any applicable requirements for co-location as set out in the Network Specifications:
- (a) specify a list and description of the physical locations at which an Ancillary Mandated Services Qualifying Person may physically co-locate equipment;
  - (b) specify a description of the equipment space, power, earthing security, site security at each co-location site;
  - (c) provide a description of the building management system, stand-by generator, gas detection system, uninterruptible power supplies, air-conditioning systems, fire suppression systems, water detection system site security and site maintenance provided at each co-location site where applicable;
  - (d) state that where the Licensee cannot offer Co-location Services due to space limitations or for any other legitimate reason, the Licensee shall take reasonable measures to find an alternative solution; and

- (e) state that co-location space will be allocated to each Ancillary Mandated Services Qualifying Person in a fair and reasonable manner on a first-come-first-serve basis.
- 7.13 The ICO shall offer Ancillary Mandated Services Qualifying Persons access to their co-located equipment on a 7-days-a-week, 24-hours-a-day basis. The Licensee may require Ancillary Mandated Services Qualifying Persons to undertake reasonable security precautions but these should not be any more onerous than those applicable to itself.
- 7.14 The Licensee may require escorted access provided that the escort provided by the Licensee is available 7 days a week, 24 hours a day on the following basis at a minimum:
  - (a) For service-affecting emergencies, within 1 hour of notification;
  - (b) For non-service affecting emergencies, within 4 hours of notification; and
  - (c) In all other cases, within 24 hours of notification.
- 7.15 The Licensee may not require the use of co-location cages or equivalent structures or impose any unnecessary or excessive minimum space requirements.
- 7.16 The ICO shall state that any equipment located at the CO must be used for the purposes of connecting to the Network and the provision of services over the Network. The Licensee may not otherwise unreasonably restrict the type of equipment co-located at a CO.

#### LAYER 1 REDUNDANCY

- 7.17 The ICO shall specify the prices, terms and conditions that apply to the provision of Layer 1 Redundancy, including without limitation the terms required by paragraphs 7.18 to 7.20 of this Appendix.
- 7.18 The ICO shall state that an Ancillary Mandated Services Qualifying Person may only order Layer 1 Redundancy between two Connectivity Points for which the Ancillary Mandated Services Qualifying Person has also ordered Layer 1 Services.
- 7.19 The ICO shall offer Layer 1 Redundancy:
  - (a) between a CO and another CO, with Duct Diversity and/or Path Diversity;
  - (b) between the CO and the MDF serving Residential Premises and Non-Residential Premises, with Duct Diversity and/or Path Diversity, where demand requires; and
  - (c) between the MDF and the 1st TP of any Residential Premise or Non-Residential Premise, with Duct Diversity, Path Diversity and/or Wireline Diversity, where demand requires.
- 7.20 The ICO may specify one-time and recurring charges for Layer 1 Redundancy provided that:

- (a) any one-time charge for Layer 1 Redundancy between any two Connectivity Points with Duct Diversity and/or Path Diversity shall be calculated on a cost-oriented basis and no other basis;
- (b) any one-time charge for Layer 1 Redundancy between any two Connectivity Points with Wireline diversity only shall be no more than the one-time charge for a Layer 1 Service between the same two Connectivity Points; and
- (c) any recurring charge for Layer 1 Redundancy between any two Connectivity Points (whether with Duct Diversity, Path Diversity and/or Wireline Diversity) shall be no more than the recurring charge for a Layer 1 Service between the same two Connectivity Points.

## **8. MANDATED SERVICES INFORMATION**

- 8.1 Pursuant to sections 2.2 and 7 of the NetCo Interconnection Code 2009, the ICO shall state that the Licensee will maintain full and comprehensive Mandated Services Information, in electronic format, which shall be made available on the Platform to any Qualifying Person entitled to receive the information.
- 8.2 The ICO shall state that the Licensee will provide Qualifying Persons who request Mandated Services with password protected access to the Platform.
- 8.3 The ICO shall state the processes implemented by the Licensee to ensure that appropriate access to Mandated Services Information is granted to appropriate persons.
- 8.4 The ICO shall state the Qualifying Person acknowledges and agrees that it shall keep all information accessed through the Platform confidential.
- 8.5 The ICO may not include any separate charges for the provision of Mandated Services Information.

## **9. AVAILABILITY PERIOD**

- 9.1 The ICO shall state that the Mandated Services shall be available according to the Service Activation Periods as specified in the Network Specifications.
- 9.2 The ICO shall state that the Licensee shall not unreasonably refuse to provide Mandated Services to Physical Addresses due to the reason of insufficient capacity. Under such circumstances, the Licensee shall provide the Mandated Services within 10 Working Days if additional capacity is required to be provided between the TER or MDF Room and the 1st TP, and within 40 Working Days if additional capacity is required to be provided between the CO and the 1st TP. Save for the above changes to the Service Activation Periods, all other ICO terms and conditions shall continue to apply.

**10. ORDERING, PROVISIONING AND DEACTIVATION OF MANDATED SERVICES**

- 10.1 The ICO shall state that general information relating to the Mandated Services is publicly available on the Website but that Qualifying Persons who wish to access Mandated Services Information and order Mandated Services shall do so through the Platform.
- 10.2 Pursuant to section 8 of the NetCo Interconnection Code 2009, the ICO shall state, and the Licensee shall ensure, that the Manual is available on the Licensee's Website.
- 10.3 The ICO shall clearly specify:
- (a) the services available on that Platform to:
    - (i) Basic Mandated Services Qualifying Persons; and
    - (ii) Ancillary Mandated Services Qualifying Persons.
  - (b) the process by which a Qualifying Person may obtain access to the Platform; and
  - (c) the terms and conditions on which the Licensee will provide access to the services available on the Platform.
- 10.4 The Licensee shall state that access to the Platform will be free of charge and will be provided only to Qualifying Persons, such other persons as may be stipulated by IDA and IDA.
- 10.5 Any conditions imposed on the ordering of Mandated Services must be reasonable. The following terms and conditions shall be considered unreasonable:
- (a) Qualifying Persons must order Mandated Services in a particular sequence (save to the extent that is expressly permitted by the terms of this Appendix);
  - (b) Qualifying Persons must order Mandated Services for a particular purpose (save to the extent that is expressly permitted by the terms of this Appendix); and
  - (c) Qualifying Persons must order Mandated Services only within a particular time window.
- 10.6 The ICO may require a Basic Mandated Services Qualifying Person to order Layer 1 Services for a minimum period provided that any such minimum period is no longer than 12 months. Any penalty imposed for termination before the expiry of such minimum period shall be no more than the total charges payable by the Basic Mandated Services Qualifying Person for the remaining minimum service term.
- 10.7 The ICO shall set out the process by which the Licensee will verify the fulfilment of any conditions of access to the Platform and the mechanism by which the ICO may be accepted and an ICO Agreement entered into. This mechanism must, at

minimum, allow for a fully electronic process which results in agreements that are admissible in the Singapore courts.

- 10.8 The ICO shall set out in detail the procedures for ordering the Mandated Services to enable the Qualifying Persons to understand the entire process. This shall include
- (a) a list and description of any reasonable restrictions or conditions that the Licensee intends to impose on the terms of the offer contained in the ICO, including any situations in which capacity, technical or operational constraints will limit the ability of the Licensee to meet requests for Mandated Services, and any situations in which a Licensee will not offer (or will limit or condition an offer of) ICO to a Qualifying Person or class of Qualifying Persons; and
  - (b) the contact person for any queries relating to the ordering and/or provisioning of Mandated Services.
- 10.9 The ICO shall state that once the Qualifying Person has signed an ICO Agreement, orders for the Mandated Services available to that Qualifying Person may be entered and accepted entirely online through the Platform. The ICO must further provide that if the Licensee refuses to provide the Mandated Services ordered, it will provide reasons for such refusal and the Qualifying Person that ordered the Mandated Services in question may contact the Licensee for the purposes of seeking clarification of those reasons. The Licensee shall provide alternative means of ordering Mandated Services to cater for situations where the Platform is unavailable or access is impeded and the ICO terms and conditions shall cater for this.
- 10.10 The ICO shall state that once a person has signed an ICO Agreement, requests for Mandated Services Information may be submitted and the requested Mandated Information may be provided entirely online through the Platform. The ICO must further provide that if the Licensee refuses to provide the requested Mandated Services Information, it will promptly provide reasons for such refusal and the person seeking the Mandated Services Information may contact the Licensee for the purposes of seeking clarification of those reasons. The Licensee shall provide alternative means of requesting Mandated Services Information to cater for situations where the Platform is unavailable or access is impeded and the ICO terms and conditions shall cater for this.
- 10.11 In respect of every order for Mandated Services or request for Mandated Services Information that is entered through the Platform, the Platform must provide real time error checking to
- (a) verify whether all the required information has been provided;
  - (b) verify whether all other conditions have been satisfied;
- and shall notify the Qualifying Person if there is any error or deficiency and allow the Qualifying Person to correct or remedy it without having to enter all the information again.

- 10.12 The ICO shall state that an order is binding once the Platform has generated a confirmation message which shall be delivered within 24 hours of the order.
- 10.13 The ICO shall specify the process for deactivating of any Mandated Services which shall include a mechanism for doing so via the Platform.
- 10.14 The ICO shall state that the Licensee shall deactivate any Basic Mandated Service provided under the ICO to any Qualifying Person upon at least 10 days written notice, if the Qualifying Person fails to use or activate a service to a Retail Service Provider using the Basic Mandated Service within 6 months from the date that the Basic Mandated Service was provided to the Qualifying Person, and the Qualifying Person did not dispute such written notice by the Licensee.
- 10.15 The terms of the ICO shall conform to all other requirements for ordering, provisioning and deactivation of Mandated Services as set out in the Network Specifications.

## **11. PLANNING AND FORECASTS**

- 11.1 The ICO shall specify the mechanism and process by which the Licensee shall manage and fulfil the requests for Mandated Services from all Qualifying Persons in a fair and equitable manner including, without limitation:
  - (a) how the Licensee will manage the maximum number of requests it is able to process and meet in accordance with the Network Specifications and service level guarantees on a weekly basis (the “**Request Quota**”);
  - (b) how the Licensee will process and meet any requests that exceed the Request Quota;
  - (c) how the Licensee will notify Qualifying Persons when the Request Quota has been exceeded; and
  - (d) the process by which the Licensee and the Qualifying Person shall jointly plan and manage the Qualifying Person’s forecasted demand for Mandated Services.

## **12. BILLING**

- 12.1 The Licensee shall be required to change the prices of the Mandated Services chargeable to its Qualifying Persons by the effective date of any price change required under the terms and conditions of the NetCo Interconnection Code 2009.
- 12.2 The ICO shall specify the procedures to be followed by the Licensee and a Qualifying Person in respect of the billing and payment of any charges payable in respect of the Mandated Services ordered by that Qualifying Person.
- 12.3 The ICO shall set out clearly the payment terms and conditions, including any applicable billing fees and related charges, late payment penalties, or service disruption credits.

- 12.4 The ICO shall specify the process for resolution of any billing disputes. In setting out the details of such process, the ICO shall include without limitation:
- (a) contact details for reconciliation and billing queries;
  - (b) an obligation on the Licensee to provide back-up records;
  - (c) procedures for notification of billing disputes;
  - (d) initial resolution procedures (e.g. escalation to more senior management); and
  - (e) details of how billing disputes will be finally resolved (e.g. referral to arbitration or courts).

### **13. SERVICE LEVEL GUARANTEES**

- 13.1 The ICO shall specify service level guarantees for each Mandated Service in respect of:
- (a) the Licensee’s performance in relation to the ordering, provisioning and deactivation of the Mandated Service (the “**Provisioning SLG**”);
  - (b) the availability of the Mandated Service (the “**Service Availability SLG**”); and
  - (c) the Licensee’s performance in the rectification of any faults in relation to the ordering, provisioning or availability of the Mandated Service (the “**Fault Rectification SLG**”).
- 13.2 The terms and conditions of each of the Provisioning SLG, the Service Availability SLG and the Fault Rectification SLG shall address, without limitation:
- (a) The parameters used to measure the specified service levels;
  - (b) The mechanism by which service levels are to be monitored;
  - (c) When failure to meet a particular service level is deemed to occur;
  - (d) How any failures may be rectified;
  - (e) How and when a service is deemed to be restored; and
  - (f) The consequences of, and remedies for, any breach of the service level guarantee.
- 13.3 Without prejudice to the generality of paragraph 13.2:
- (a) The terms of the Provisioning SLG for each Mandated Service shall state the ordering and provisioning times for the Mandated Service, the systems and processes used to monitor the status of ordering, provisioning and utilisation of the Mandated Service, and explain how the Qualifying Person is able to access such information and report any delays on a real-time basis;

- (b) The terms of the Service Availability SLG for each Mandated Service shall state the systems and processes used to monitor the availability of the Mandated Service and explain how the Qualifying Person is able to monitor the availability, and report any interruptions or faults, for a Mandated Service ordered on a periodic basis;
- (c) The terms of the Fault Rectification SLG for each Mandated Service shall state the systems and processes used to detect and fix any faults in the availability of the Mandated Service together with any fault escalation procedures, and explain how the Qualifying Person is able to report and monitor the status of any faults affecting a Mandated Service ordered on a real-time basis. In particular, the ICO:
  - (i) shall set out clearly the procedure for generating trouble reports including any applicable notice periods and response time standards;
  - (ii) may require the Qualifying Person to investigate its own network before reporting faults to Licensee;
  - (iii) shall state that if the Licensee is unable to identify a fault, a fault identification coordination meeting shall be held between the Qualifying Person and the Licensee to identify the fault; and
  - (iv) shall set out the responsibility of the parties for costs incurred by the Licensee in investigating faults including those subsequently found to exist in the Qualifying Person's network. The ICO shall set out clearly the calculation of charges (labour, etc.) for investigating faults.
- (d) The terms of the Fault Rectification SLG for each Basic Mandated Service shall specify that the mean time for repair of any damage to any Connection shall not be more than 8 hours and/or may specify times for repair faults according to categories of seriousness. The mean time for repair shall be based on the average time, calculated on a monthly basis, taken by the Licensee to repair the faults and restore the services for a Qualifying Person, excluding all periods of time where the Licensee is prevented or restricted from repairing or restoring services owing to matters not within the Licensee's reasonable control.
- (e) The remedies for any breach of a service level guarantee must as a minimum include payment of a rebate by the Licensee to the Qualifying Person which must be no less favourable than an amount equal to the number of days of delay multiplied by the weekly recurring charge paid by the Qualifying Person for the affected service. Any cap on liability must be no less than 30 x the weekly recurring charge paid by the Qualifying Person for the affected service.



#### **14. TESTING AND MAINTENANCE**

- 14.1 The ICO may state that the Licensee has the right to make reasonable tests, and to schedule service interruptions. The ICO shall set out the procedures the Licensee will take to minimise disruption.

#### **15. CHANGES TO THE SYSTEM**

- 15.1 If the Licensee initiates any changes to the System (a “**System Change**”) that affects any Mandated Service used by a Qualifying Person, the Licensee shall notify the Qualifying Person and bear the costs of the System Change and only those changes that are consequently necessary for the Qualifying Person to make to continue to provide the Mandated Service in substantially the same manner as it did before the System Change.

#### **16. SYSTEM PROTECTION AND SAFETY MEASURES**

- 16.1 The ICO shall provide a description of any operational and technical requirements that the Qualifying Person must comply with to avoid harm to the Licensee’s Network.

#### **17. NETWORK OPERATIONS CENTRE**

- 17.1 The ICO shall set out the contact and location details of Licensee’s network operations centre together with a statement that the Qualifying Person may contact the network operations centre in the event of a service related fault or to request service activation.

#### **18. INTERCHANGE AND TREATMENT OF INFORMATION**

##### **18.1 Data Interchange Format**

- (a) The ICO shall set out clearly the method and format of data interchange between the Qualifying Person and the Licensee, including data interfaces, software and forms.

##### **18.2 Data to be Exchanged**

- (a) The ICO shall clearly specify all data types and systems for which data is to be interchanged, including for example, new facilities and service orders, network changes and forecasts, and billing.

##### **18.3 Access to and use of End-User Information**

- (a) The ICO shall clearly set out the procedures for obtaining access to End-User information held by the Licensee and ensuring confidentiality of any End-User information.

## **19. TERMINATION**

### **19.1 Grounds for Termination and Restrictions**

- (a) The ICO shall provide that any ICO Agreement shall automatically terminate:
  - (i) on expiry of the Licensee's obligation to offer the ICO in accordance with any direction by IDA; and
  - (ii) if the Licensee is exempted by IDA from its obligation under the NetCo Interconnection Code 2009.
- (b) The ICO shall provide that any unilateral suspension or termination of the ICO Agreement by either party is subject to IDA's approval except where imminent threats to life or property or compliance with other legal or regulatory obligations require immediate action.
- (c) The ICO shall not provide for any right of the Licensee to terminate an ICO Agreement for convenience.
- (d) The ICO shall provide that the Qualifying Person may terminate an ICO Agreement upon 3 months written notice to the other party, subject to the provision required under paragraph 19.1(b).
- (e) The ICO shall provide that either party may terminate an ICO Agreement immediately subject to the provision required under paragraph 19.1(b):
  - (i) if required to do so by any regulatory or court order;
  - (ii) upon the bankruptcy, insolvency, receivership, cessation of business of the other;
  - (iii) if the Qualifying Person ceases to be a person falling within the definition of a Qualifying Person as defined in the NetCo Interconnection Code 2009; or
  - (iv) upon the material breach of the ICO Agreement by the other party which, if capable of remedy, remains unremedied for 60 days;
- (f) The ICO shall include a provision stating that the parties will notify IDA of any mutually agreed termination within 7 days of such termination of the ICO Agreement.
- (g) The ICO shall set out any post-termination procedures to apply following termination of an ICO Agreement, including any disconnection procedures and computation and payment of any disconnection costs.

## **20. OTHER GENERAL PROVISIONS**

### **20.1 Notices**

- (a) The ICO shall provide contact details for the Licensee which the Qualifying Person may use to contact the Licensee in relation to any queries relating to the ordering and/or provisioning of Mandated Services

or Mandated Information under the ICO, including details of any helpdesk functionality required under the Network Specifications.

## 20.2 Confidentiality

- (a) The ICO shall contain a statement of the terms on which the Licensee will protect confidential information provided by the Qualifying Person, and the terms on which the Licensee requires the Qualifying Person to protect its confidential information, in connection with any ICO Agreement, including a description of the standards to be used to determine whether information is confidential and the appropriate procedures to ensure that confidential information provided by the Qualifying Person is not used for the development or marketing of other telecommunication services or equipment by either party or third parties.

## 20.3 Force Majeure

- (a) The ICO shall include force majeure provisions.

## 20.4 Assignment

- (a) The ICO shall provide the Licensee will not unreasonably withhold consent from a Qualifying Person seeking to assign its rights and obligations to another Qualifying Person.

## 20.5 Applicable Laws

- (a) The ICO shall provide that any ICO Agreement entered into pursuant to the terms of the ICO and any disputes between the parties in respect of an ICO Agreement will be governed by the laws of the Republic of Singapore.

## 20.6 Breach of Agreement

- (a) The ICO shall set out the remedies and penalties applicable to any breach of an ICO Agreement by either party.
- (b) The ICO shall clearly set out any applicable limitations of liability and indemnity provisions.
- (c) The ICO may not exclude or cap liability for death, personal injury, gross negligence or wilful default. The ICO may exclude consequential, special, incidental, indirect and exemplary damages.
- (d) Subject to paragraph 20.6(c) the Licensee may limit liability under the ICO provided that any limitation on shall be no lower than the total charges paid or payable by the Qualifying Person during the 12 months prior to the event giving rise to liability save where liability arises from a claim of intellectual property infringement in which case the limitation on liability shall be no lower than 3 times the total charges paid or payable by the Qualifying Person during the 12 months prior to notice of infringement.

20.7 Warranties

- (a) The Licensee shall warrant that it shall not place any devices on the Wireline to restrict or constrain the use of the Wireline.

20.8 Legal Interpretation

- (a) The ICO shall provide that:
  - (i) if the ICO is accepted, the ICO Agreement will constitute the entire agreement between the parties; and
  - (ii) if any provision of the ICO Agreement is held to be unlawful or is required to be amended, all other provisions of the agreement will survive.

20.9 Dispute Resolution

- (a) The ICO shall include a provision stating that the parties may jointly request IDA to provide conciliation to assist them in resolving any dispute.
- (b) The ICO shall detail the procedure to be followed by the parties for the resolution of disputes and conciliation, which shall be consistent with the terms of the NetCo Interconnection Code 2009 and which may be done by reference to the Manual published on the Licensee's Website.