



**LICENCE TO PROVIDE
FACILITIES-BASED OPERATIONS GRANTED BY
THE INFO-COMMUNICATIONS MEDIA DEVELOPMENT AUTHORITY
TO STARHUB LTD UNDER SECTION 5 OF THE
TELECOMMUNICATIONS ACT 1999**

**ISSUED ON 5 MAY 1998
RENEWED ON 1 APRIL 2020**

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PART I: THE LICENCE

- A. On 5 May 1998, the Telecommunication Authority of Singapore (subsequently known as the Info-communications Development Authority of Singapore and now known as the Info-communications Media Development Authority, and hereinafter referred to as the “Authority”), in exercise of its powers under Section 26 of the Telecommunication Authority of Singapore Act 1992 (now Section 5 of the Telecommunications Act 1999 (hereinafter referred to as “the Act”), issued this telecommunication licence (the “Licence”) to StarHub Ltd (hereinafter referred to as the “Licensee”) to establish, install and maintain the telecommunication systems and to operate and provide the telecommunication services as then specified in the Licence. The Licensee was also designated a Public Telecommunication Licensee on 5 May 1998.
- B. On 1 April 2000, the Authority granted Singapore Cable Vision Limited (designated on 1 April 2000 as a Public Telecommunication Licensee under Section 6 of the Act) a licence to establish, install and maintain the telecommunication systems and to operate and provide the telecommunication services over the said telecommunication systems.
- C. On 23 May 2000, the Licensee was notified of modifications to be made to the terms and conditions of the Licence, and modifications were made on 8 September 2000.
- D. On 2 July 2002, the Licence was modified in connection with the Licensee’s acceptance of the imposition of additional terms and conditions arising from the approval of the consolidation application submitted by the Licensee, StarHub Mobile Pte Ltd and Singapore Cable Vision Limited (subsequently known as StarHub Cable Vision Ltd and hereinafter referred to as “SCV”) to the Authority on 17 May 2002.
- E. Between 31 August 2017 and 11 June 2018, the Licensee had notified the Authority of its intention to cease SCV’s Hybrid-Fibre Coaxial (“HFC”) network

and its associated services (“HFC Cessation”), and consequently requested not to renew the licence held by SCV and to amend the Licence to remove any references to the Licensee’s provision of services over SCV’s HFC network. On 4 October 2018, the Authority granted its approval to the HFC Cessation.

- F. On 22 November 2018 and 21 January 2019, the Authority, in exercise of its powers under Section 7 of the Act, modified the terms and conditions of the Licence, which took effect on 21 January 2019.
- G. On 1 November 2019, the Licensee was notified of modifications to be made to the terms and conditions of the Licence, and modifications were made on 1 April 2020, arising from the HFC Cessation. Upon the expiry of SCV’s licence on 31 March 2020, the Licensee is responsible for the remaining systems and services previously undertaken by SCV. The Licence will also reflect SCV’s HFC network systems, which will be valid up till 31 March 2021.
- H. On 6 February 2023, the Licensee submitted a request seeking the Authority’s consideration to allow the Licensee to formally dissolve Nucleus Connect Pte Ltd (“NC”) and to fully integrate NC’s facilities and services into StarHub Ltd (“Proposed Integration”). On 27 October 2023, the Licensee submitted proposed amendments to the Licensee’s Licence to incorporate the relevant conditions in NC’s Facilities-Based Operations Licence (“NC’s FBO Licence”), including all licence obligations relating to deployment of telecommunication systems and provision of telecommunication services under NC’s FBO licence, to give effect to the Proposed Integration. IMDA has since approved the Licensee’s request for the Proposed Integration on 29 February 2024.
- I. On the basis of the Licensee’s request and clarifications made by the Licensee in its correspondence with the Authority between 27 October 2023 to 13 December 2023 on the proposed amendments to the Licensee’s Licence and IMDA’s 29 February 2024 approval, the Authority granted its approval for amendments to the Licensee’s Licence on 13 December 2024 for purpose of the Proposed Integration.
- J. For the avoidance of doubt, all terms and conditions herein and in the Schedules annexed hereto, shall be collectively referred to and taken by all parties concerned as the Licence.

1 Period of Licence

1.1 The Licence is renewed on 1 April 2020 and shall be valid for a period of twenty (20) years, unless suspended or cancelled by the Authority in accordance with Condition 44 or terminated by the Licensee in accordance with Condition 45 of this Licence.

1.2 The Licence may be further renewed for such period as the Authority thinks fit and subject to such terms and conditions as may be specified by the Authority under Section 5 of the Act.

2 Payment of Licence Fee

2.1 The Licensee shall pay to the Authority an annual fee which is based on the audited annual gross turnover (“AGTO”) for the provision of the services during the Licensee’s financial year. The annual fee payable shall be the total of –

(a) a minimum sum of \$200,000;

(b) 0.8% of such amount of the Licensee’s audited AGTO for the provision of the services during the Licensee’s financial year that is more than \$50 million up to \$100 million; and

(c) 1% of such amount of the Licensee’s audited AGTO for the provision of the services during the Licensee’s financial year that is more than \$100 million.

2.2 The licence fees payable under Condition 2.1 shall be forfeited if the Licence is terminated or cancelled at any time during the term of the Licence.

2.3 For the first year of operation, the minimum annual licence fee of \$200,000 shall be payable by the Licensee within two (2) weeks of the grant of the Licence and shall be adjusted at the end of the Licensee’s financial year based on the Licensee’s audited AGTO submitted to the Authority.

2.4 For the subsequent years, the annual licence fee based on the last available audited AGTO, shall be paid in advance on the first day of the Licensee’s

financial year, subject to the minimum fee of \$200,000 and subject to adjustment when more recent audited AGTO are available.

2.5 In the event of a default by the Licensee in the payment of any fee when due under the Licence, the Licensee shall pay to the Authority interest on the amount from time to time outstanding in respect of the overdue sum for the period beginning on (and including) its due date and ending on (and excluding) the date of its receipt in full by the Authority, which interest shall accrue from day to day and shall be calculated on the basis of the actual number of days elapsed and a three hundred and sixty-five (365) day year. The applicable rate of interest shall be the average of the prevailing prime lending rates of the banks and finance companies quoted and published by the Monetary Authority of Singapore. For the avoidance of doubt, the Licensee shall continue to be subject to its obligations under the Licence and shall not be released from such obligations by reason of any late payment of licence fee.

2.6 The Licensee shall submit to the Authority an audited AGTO statement, not later than six (6) months after the end of each financial year.

2.7 In the event that the Licensee fails to submit its audited AGTO statement within the timeframe stipulated in Condition 2.6, the Licensee shall be under a continuing obligation to submit the same immediately notwithstanding any penalties imposed by the Authority for breach of Condition 2.6 or this Condition 2.7.

3 Licence is not Transferable

3.1 The Licensee shall not assign, transfer, sublet or otherwise dispose of its rights, duties, liabilities, obligations and privileges under this Licence to any person or persons except with the prior approval of the Authority.

3.2 Any such approval shall be given subject to terms and conditions, which the Authority at its discretion may impose.

4

Description of Systems and Services

4.1

The Licensee shall maintain and operate:

- (a) the systems as described in Schedule A (herein referred to as the “Systems”) for the provision of the services as described in Schedule B (herein referred to as the “Services”) subject to the terms and conditions set out in Schedule C; and
- (b) the systems as described in Schedule A1 (herein referred to as the “NBN OpCo Systems”) for the provision of the services as described in Schedule B1 (herein referred to as the “NBN Wholesale OpCo Services”) subject to the terms and conditions set out in Schedule C1.

The Licensee shall not operate or provide any system or service not described in Schedules A, A1, B and B1 except with the prior approval of the Authority.

4.2

Where the Licensee wishes to introduce a new system and/or service or makes changes to any system and/or service, the Licensee shall provide the Authority such technical and/or non-technical information as may be required by the Authority within such period as may be specified by the Authority.

5

Licence Application Proposals

5.1

Without prejudice to any of the Licensee’s obligations under this Licence, the Licensee shall abide with:

- (a) its proposals on network rollout, range of services, quality of service standards, pricing and service provisioning schemes and any other commitments as submitted to the Authority pursuant to the Authority’s notice on modification of licence conditions dated 23 May 2000 and subsequent letter dated 1 September 2000; and
- (b) NC’s proposals on network rollout, range of services, quality of service standards, pricing and service provisioning schemes and any other commitments as submitted to IMDA in NC’s licence application as well as stated in NC’s FBO Licence. In the event of any inconsistency between the terms of this License and the commitments in NC’s licence application and/or NC’s FBO Licence, the terms of this Licence shall prevail.

6**Provision of Domestic Services**

6.1 The Licensee shall establish, install, maintain and operate the Systems and shall provide, through or with the use of the Systems, a Basic Telephone Service to any person in Singapore who requests the provision of such service where the Licensee has rolled out its local access network.

6.2 In this Condition, “Basic Telephone Service” means a fundamentally plain telephony service provided through a telephone set connected to the Licensee’s public fixed-line telephone system, which enables persons to make and receive voice calls within Singapore, and which shall exclude such service that is provided through any enhancement or supplementary configuration of the Systems.

7**Provision of NBN Wholesale OpCo Services**

7.1 The Licensee shall establish, install, maintain and operate the NBN OpCo Systems for the provision of NBN Wholesale OpCo Services subject to the terms and conditions as set out in Schedule C1 and shall provide, through or with the use of the NBN OpCo Systems, the Mandated Services to any Qualifying Person in Singapore who requests the provision of such services to any of the following locations in mainland Singapore and connected Singapore islands:

- (a) all Physical Addresses; and
- (b) all other locations as may be reasonably requested.

7.2 In this Condition, “Mandated Services”, “Physical Addresses” and “Qualifying Person” shall have the meanings set out in Schedule C1.

7.3 The Licensee shall implement the best technology/s that best meets market needs (including current and anticipated market needs and taking into consideration actual or anticipated market demand, and the views of the market and the Authority) in the maintenance and operation of the NBN OpCo Systems for the provisioning of NBN Wholesale OpCo Services.

Provision of International Services

8.1

The Licensee shall take all reasonable steps to provide to any person to whom it provides telecommunication services, full connection by means of the Systems or NBN OpCo Systems to international telecommunication services, unless the Authority is satisfied that for any of the reasons set out in Condition 47 it would be unreasonable for the Licensee to do so.

Public Emergency Call Services

9.1

The Licensee shall ensure that:

- (a) any person through customer premises equipment connected to the Licensee's public fixed-line telephone system; and
- (b) any person through its public payphones

may at any time and without charge, contact the relevant police service (namely 999 or its substitute number), the fire and ambulance services (namely 995 or its substitute number) and any other national emergency services which the Minister may from time to time designate, for the purpose of notifying them of any emergency.

Public Maritime Emergency Services

10.1

The Licensee shall ensure that it is possible for any person to contact at any time and without charge, distress, urgency and safety services for shipping for the purpose of notifying them of an emergency and shall, subject to fair and proper payment by the relevant Government ministry, department, statutory board or official agency, provide the necessary facilities for distress, urgency and safety services in accordance with the Radio Regulations of the International Telecommunications Union.

Co-operation with Civil/Public Bodies

11.1

The Licensee shall co-operate with the relevant Government ministries, departments, statutory boards or official agencies in all possible ways to support national security, and public safety and security.

12 Provision of Directory Enquiry Services

12.1 The Licensee shall provide, on request, to any person to whom it provides telecommunication services, directory enquiry services based on an integrated customer database. The Authority reserves the right to require the Licensee to obtain the Authority's prior written approval on any charges it intends to levy for the provision of the directory enquiry services and the Licensee shall comply with such requirement imposed.

12.2 The Authority reserves the right to require the Licensee to provide directory enquiry services for subscribers of other licensees.

13 Provision of Integrated Directories

13.1 The Authority reserves the right to require the Licensee to provide integrated directories for all subscribers at no charge (except with the approval of the Authority) and at annual intervals or any other intervals to be agreed with the Authority.

13.2 The Licensee shall, if necessary, and subject to charges, terms and conditions to be agreed with other licensees, provide integrated directories for their subscribers. In the event that agreement cannot be reached, the matter shall be determined by the Authority, whose decision is final.

14 Integrated Directory and Directory Enquiry Services

14.1 The Licensee shall exchange all relevant customer data with other licensees for the purpose of providing integrated directories and providing integrated directory enquiry services. The data so exchanged will be free of charge. Subject to the Authority's approval and applicable Codes of Practice, the Licensee may recover the cost of facilitating such exchanges of data with other licensees.

15 Public Payphones

15.1 The Licensee shall, in compliance with any directions, which the Authority may from time to time issue, provide and maintain public payphone services in Singapore.

PART III: TECHNICAL OBLIGATIONS

16 Use of Telecommunication Equipment in the Systems or NBN OpCo Systems

16.1 Prior to the operation of any of the Systems or NBN OpCo Systems, the Licensee shall in accordance with Section 11 of the Act, submit for the Authority's approval all telecommunication infrastructure, technology and any telecommunication equipment which is part of the Systems or NBN OpCo Systems or which is to be connected to the Systems or NBN OpCo Systems.

16.2 The Licensee shall seek the Authority's prior approval from time to time for any other telecommunication equipment to be used in the operation of the Systems or NBN OpCo Systems for which the approval has not been granted under Section 11 of the Act, whether such other equipment is in addition to or intended to replace the existing equipment or part thereof.

17 Operation of Radio-communication Stations

17.1 The Licensee shall apply for all necessary licences under the Telecommunications (Radio-communication) Regulations for the operation of any radio-communication stations comprised in the Systems or NBN OpCo Systems and shall abide by any conditions imposed thereunder, including the payment of station licence fees and frequency fees for the allocation and management of frequencies by the Authority.

17.2 Any change to the location, equipment, frequencies, emissions, power, polarisation, aerial characteristics and other technical parameters of any radio-communication station comprised in the Systems or NBN OpCo Systems shall be submitted in writing for the Authority's prior approval.

17.3 The Licensee shall comply, at its own cost, with any requirements and guidelines established by the Authority and the relevant authorities on the height of the antenna of any radio-communication station comprised in the Systems.

18 Use of Radio Frequencies

18.1 The Licensee shall, in its application to the Authority, justify the use of radio frequencies and shall, subject to payment of the required frequency fees, be provided with the necessary frequencies to enable the effective and efficient operation of the Systems or NBN OpCo Systems and the provision of the Services or NBN Wholesale OpCo Services by the Licensee.

18.2 The Licensee shall take all necessary steps to ensure that the use of its Systems or NBN OpCo Systems is safe and does not cause interference to other existing radio-communication networks operating in the same band or in other bands. The Licensee shall also take appropriate measures to ensure that its Systems or NBN OpCo Systems is adequately protected from interference that may be caused by networks operating in the same band or in other bands.

19 Assignment of Numbers

19.1 The Licensee shall comply with the Authority's National Numbering Plan and the Authority's framework and guidelines on the usage, allocation and assignment of numbers. The Licensee shall, in its submission to the Authority, justify the use of numbers and shall, subject to payment of the required fees for Golden Numbers, be provided with the necessary numbers to enable the effective and efficient operation of the Systems or NBN OpCo Systems and provision of Services or NBN Wholesale OpCo Services. The Licensee shall take all necessary steps to ensure that the numbers assigned are efficiently utilised.

19.2 Any number(s) assigned to the Licensee is the property of the Authority and the Licensee shall have no proprietary right to any of the number(s) assigned. The Licensee shall take all necessary steps to ensure that the number(s) assigned is efficiently utilised.

19.3 The Authority reserves the right to alter and/or reallocate any number(s) given to the Licensee at any time, upon written notice, without being liable for any loss or inconvenience directly or indirectly attributable to the alteration or reallocation of such number(s).

PART IV: ACCESS AND INTERCONNECTION OBLIGATIONS

20 Requirement to Provide Access

20.1 The Licensee shall provide to any person licensed by the Authority to provide telecommunication services in Singapore, means of access to the Systems and any person specified in Schedule C1, means of access to the NBN OpCo Systems.

20.2 The Licensee may, with the prior approval of the Authority, impose an access charge upon any person licensed by the Authority to provide telecommunication services in Singapore through or with the use of the Systems or NBN OpCo Systems.

20.3 The Licensee shall comply with the Authority's interconnection & access framework, arrangements and requirements, including codes of practice, directions and notifications which the Authority may issue from time to time.

21 Connection to Other Systems

21.1 The Licensee shall connect to the Systems or NBN OpCo Systems on request and at appropriate connection points, which it shall provide for this purpose:

- (a) any equipment approved or exempted from approval by the Authority for connection to the Systems or NBN OpCo Systems; and
- (b) any public or private telecommunication systems approved or licensed by the Authority which systems also meet any other requirements, which the Authority may from time to time impose.

21.2 Notwithstanding Condition 21.1, the Licensee shall cease to connect or refuse to connect to the System or NBN OpCo Systems any equipment or system that:

- (a) has not been approved, licensed or exempted from approval or licensing by the Authority; or
- (b) no longer meets the requirements for approval or licensing by the Authority, in respect of which the Authority has issued a notice to that effect to the person who has under his control such equipment or system.

21.3 The terms and conditions for the connection of equipment or systems to the Systems or NBN OpCo Systems of the Licensee shall be determined by agreement between the Licensee and the owner or operator of the equipment or system except in so far as the conditions are prescribed in the Act or in this Licence. In the event that the parties cannot reach an agreement, the matter shall be determined by the Authority whose decision shall be final.

22 Arrangements for Connection to Systems or NBN OpCo Systems

22.1 The Licensee shall not impose technical or other conditions or employ any arrangements for the connection of equipment or systems to the Systems or NBN OpCo Systems other than those set by the Authority. In particular, the Licensee shall not, except where the Authority is satisfied that it is reasonable, exercise any Intellectual Property Rights which it owns or is licensed to use in a manner which prevents or inhibits the connection of approved equipment or systems to the Systems or NBN OpCo Systems.

22.2 In this Condition, “Intellectual Property Rights” means, without prejudice to its generality, the rights to patents, trademarks, designs, know-how and copyright.

22.3 The Licensee is required to comply with the following technical requirements and safeguards:

- (a) the Licensee shall not manipulate the Calling Line Identity of the original calling party and the original calling party Calling Line Identity shall be passed on in the conveyance of a call accordingly.
- (b) the Licensee shall not, in the handling of outgoing traffic, manipulate the access code dialled by the calling party.
- (c) the A-bit of the Forward Call Indicator of the Initial Access Message on the ITU-T Signalling System Number 7 ISDN User Part signalling should be set to the value “1” to identify an international incoming call for systems inter-working. Where the Licensee operates a system which does not support ITU-T Signalling System Number 7 signalling, then the Licensee shall route such international incoming calls on specified circuits.

23 Changes to Systems or NBN OpCo Systems

23.1 The Licensee shall give notice in writing to the Authority and shall notify all parties affected of any changes it intends to implement in the specification or performance of the Systems or NBN OpCo Systems which would require changes to any equipment or systems connected to the Systems or NBN OpCo Systems or which would have the effect of making such connections inoperable. The period of notice given shall be appropriate to the likely impact on the parties affected and on connected equipment or systems and shall be decided in consultation with the Authority.

23.2 Where the Authority considers that a change in the Systems or NBN OpCo Systems referred to in Condition 23.1 would cause another person licensed to provide telecommunication services in Singapore to make major changes in its own systems in order to connect its systems to the Systems or NBN OpCo Systems, and notifies the Licensee thereof, the Licensee shall obtain the prior approval of the Authority before implementing such a change.

24 Infrastructure Sharing and Deployment

24.1 The Licensee shall comply with the Authority's framework for facilities sharing and deployment, including all relevant codes of practice, directions and notifications which the Authority may issue from time to time.

24.2 Where the Authority considers it necessary for the Licensee to share infrastructure with other licensees in designated areas in the national and/or public interest or otherwise, the Authority shall inform the licensees accordingly so that licensees can make the necessary arrangements before submitting their infrastructure sharing plans to the Authority for approval. The Licensee shall share infrastructure whenever and wherever mandated by the Authority in accordance with the framework for facilities sharing and deployment, including codes of practice.

25 Requirement for Underground Telecommunication Systems

25.1 The Licensee shall comply with any requirements by the Authority and the relevant authorities on its underground telecommunication systems in Singapore, including the provision of information on such systems in the format specified by the authorities.

PART V: SERVICE OBLIGATIONS

26 Price Control/Tariffing Arrangements/Quality of Service Standards

- 26.1 The Authority reserves the right to establish price control arrangements and Quality of Service Standards for the Services or NBN Wholesale OpCo Services provided by the Licensee with which the Licensee shall comply.
- 26.2 The Authority reserves the right to require the Licensee to maintain separate financial data and accounts for the Services or NBN Wholesale OpCo Services and shall submit on request these data and accounts to the Authority for inspection.
- 26.3 The Authority reserves the right to require the Licensee to file its schemes of service, including non-price terms and conditions for the provisioning of services and price schemes with the Authority before commercial launch or announcement of such services.

27 Publication of Charges, Terms and Conditions and Other Information

- 27.1 The Licensee shall publish information about the Services or NBN Wholesale OpCo Services it provides, covering inter alia, descriptions and pricing of the Services or NBN Wholesale OpCo Services available, the terms and conditions thereof, and the provision of fault repair and any other commercial and technical services, and such other information as the Authority may require the Licensee to publish in relation to the Services or NBN Wholesale OpCo Services.

28 Confidentiality of Subscriber Information

- 28.1 The Licensee shall respect and ensure the confidentiality of subscriber information, especially for ex-directory numbers, and comply with any codes of practice or guidelines issued by the Authority in relation to the use of subscriber information.
- 28.2 Notwithstanding Condition 28.1, the Licensee shall disclose subscriber information where deemed necessary by the Authority or any relevant law enforcement or security agencies in the exercise of their functions and duties.

PART VI: OTHER OBLIGATIONS

29 Codes of Practice and Advisory Guidelines

29.1 The Licensee shall comply with the codes of practice issued by the Authority as well as any additional or supplemental guidelines, which the Authority may issue from time to time.

30 Number Portability

30.1 The Licensee shall implement number portability from commencement of service subject to the Authority's number portability requirements and charging principles.

30.2 The Licensee shall comply, at its own cost, with any requirements and guidelines established by the Authority on number portability to be implemented by the Licensee.

31 Accounting Separation

31.1 The Licensee shall comply with the practices, principles and requirements set out in the Accounting Separation Guidelines established by the Authority, and any additional or supplemental guidelines issued by the Authority from time to time.

32 Restriction on Undue Preference and Undue Discrimination

32.1 The Licensee shall not show undue preference towards, or exercise undue discrimination against any person or class of persons in, *inter alia*, the price and performance characteristics of the Services or NBN Wholesale OpCo Services provided or the terms and conditions under which the Services or NBN Wholesale OpCo Services are provided. In particular, the Licensee shall not give any undue preference to, or receive an unfair advantage from, a business carried on by it or an associated or affiliated company, service or person, if the Authority is of the opinion that the Licensee's competitor could be placed at a significant competitive disadvantage or that competition would be prevented or substantially restricted.

33

Restriction Against Anti-Competitive Arrangements

33.1

The Licensee shall not enter into any agreement or arrangement, whether legally enforceable or not, which shall in any way prevent or restrict competition in relation to the operation of the Systems or NBN OpCo Systems or provision of the Services or NBN Wholesale OpCo Services by the Licensee or any other telecommunication system and/or services licensed by the Authority.

34

Restriction on Exclusive Arrangement for International Services

34.1

The Licensee shall not enter into any agreement or arrangement with a person running an Authorised Overseas System on terms or conditions which unfairly preclude or restrict, to the detriment of the national and/or public interest, the provision of any international telecommunication services by any person licensed by the Authority to provide those services.

34.2

In this Condition, “Authorised Overseas System” means a system, which is recognised by the Government or any competent authority of a foreign country as authorised to provide telecommunication services by or through that system.

34.3

The Licensee shall comply with the Authority’s requirements on the international settlement regime and seek the Authority’s endorsement and/or approval to the arrangements reached with other licensees, before implementation.

35

Contracts with Third Parties to Operate or Provide Licensed Systems or Services

35.1

Where the Licensee intends to enter into any joint venture, association, contract or arrangement with a third party, the effect or purported effect of which would be to permit a person who is not originally a party to this Licence to share in the benefits of, or otherwise gain any rights or privileges under this Licence, or which would otherwise result in a breach or circumvention of Condition 3.1, the Licensee shall seek the Authority’s approval for the joint venture, association, contract or arrangement in question.

35.2

The Authority may direct at any time the Licensee to effect any changes it deems necessary in the terms and conditions of the joint venture, association, contract or arrangement referred to above.

35.3 If the Licensee fails to effect the necessary changes referred to in Condition 35.2, the Authority may direct the Licensee to terminate any such joint venture, association, contract or arrangement.

35.4 Nothing in Condition 35.1 shall be construed as requiring the Licensee to obtain the approval of the Authority for the appointment of agents or for the employment of independent contractors or sub-contractors to carry out any works or provide any services which enable the Licensee to discharge its duties and obligations under this Licence provided that the Licensee shall be liable to the Authority for any act, omission, default, neglect or otherwise of the agents and independent contractors or sub-contractors in carrying out any such works or providing any such services.

36 Board Directorship and Management Appointments

36.1 The Licensee shall seek the Authority's written approval at least one (1) month in advance of any change in the appointment of its Chairman, Board of Directors or Chief Executive Officer and shall for this purpose provide the Authority with the details of any such change and any further information requested by the Authority.

37 Direction by the Authority

37.1 The Licensee shall strictly and without any undue delay comply with any directions, which the Authority may from time to time issue in exercise of its powers, functions or duties under the Act, or in this Licence.

37.2 The Authority may, by notice in writing to the Licensee amend, vary or revoke wholly or in part any directions given by it pursuant to Condition 37.1.

37.3 Unless otherwise expressly specified, the Licensee shall safeguard the secrecy of all directions given by the Authority. The Licensee shall not during the currency and after the expiry, termination or cancellation of the Licence disclose or permit the disclosure of any of the said directions to any person not authorised to receive the same without the prior written consent of the Chief Executive Officer of the Authority. The Licensee shall further take all reasonable precautions in dealing with the said directions so as to prevent any unauthorised person from having access to the same.

38 Dispute Resolution

38.1 In the event that the Licensee fails to reach an agreement with other telecommunication licensees on matters relating to the requirements of this Licence or the Act, the matter shall be determined by the Authority whose decision shall be binding on all parties concerned.

38.2 The Authority reserves the right to levy a fee for work undertaken in this respect.

39 Provision of Information to the Authority

39.1 The Licensee shall provide the Authority with any document and information within its knowledge, custody or control, which the Authority may, by notice or direction require. The Licensee undertakes to the Authority that any such document and information provided to the Authority shall be true, accurate and complete.

39.2 For the purposes of ensuring the Licensee's compliance with the conditions of the Licence, the Authority may from time to time require the Licensee to arrange at its own expense, for a separate and independent audit of its activities. The Licensee shall, at the Authority's request, submit the audited accounts and reports prepared under this Condition 39.2 to the Authority for inspection and verification.

39.3 The Licensee shall keep in strict confidence any document and information furnished to or so required by the Authority pursuant to Condition 39.1, as well as the fact that the Authority has requested for such document and/or information.

39.4 The Authority may use and disclose any such document or information provided to the Authority pursuant to Condition 39.1 as the Authority deems fit. Where the Authority proposes to disclose any document or information obtained pursuant to Condition 39.1 and the Authority considers that the disclosure would result in the release of information concerning the business, commercial or financial affairs of the Licensee or which disclosure would or could reasonably be expected to adversely affect the Licensee's lawful business, commercial or financial affairs, the Authority will give the Licensee a reasonable opportunity to make representations on the proposed disclosure

before the Authority makes a final decision on whether to disclose the information.

40 Participation in Emergency Activities

- 40.1 The Licensee shall, where directed by the Authority, participate in any emergency activities or preparations thereof in collaboration with other relevant agencies, organisations and Government ministries and departments, in accordance with the written law in Singapore.
- 40.2 The Licensee shall, unless expressively notified, keep in strict confidence any information or document pertaining to Condition 40.1 as well as the fact that the Authority has requested the Licensee to participate in such emergency activities and preparations.
- 40.3 The Authority, may from time to time, require the Licensee to submit to the Authority for approval any changes to any telecommunication system, installation or plant and any service plans, together with such technical and non-technical information as may be required by the Authority, at least one (1) month before such change is intended to be implemented.

41 International Obligations

- 41.1 The Licensee shall exercise its rights and powers and perform its duties and obligations under this Licence in a manner, which is consistent with the Government's obligations under any convention, agreement, arrangement or treaty to which Singapore is or shall become a party.
- 41.2 The Authority shall notify the Licensee from time to time of any such convention, agreement, arrangement or treaty to which Condition 41.1 applies for its compliance.

PART VII: SUSPENSION, VARIATION AND TERMINATION

42 Penalty Framework for Breach of Licence Conditions

42.1 Where the Licensee breaches any licence condition, the Authority may impose a financial penalty on the Licensee in accordance with Section 10 of the Act.

43 Variation of Terms of Licence

43.1 Pursuant to Section 9(1) of the Act, the Authority may vary or amend any of the terms of this Licence by giving the Licensee at least one (1) month's notice in writing.

44 Suspension/Cancellation

44.1 The Authority may, in any of the events specified in Section 10 of the Act, by notice in writing given to the Licensee, suspend or cancel the Licence in whole or in part, or impose a financial penalty in such amounts the Authority thinks fit.

45 Termination of Licence or Cessation of Systems / NBN OpCo Systems or Services / NBN Wholesale OpCo Services

45.1 In the event that the Licensee desires to terminate its Licence or cease its operation of any of the Systems or NBN OpCo Systems or the provision of any of the Services or NBN Wholesale OpCo Services, the Licensee shall seek the Authority's approval in writing at least six (6) months in advance.

45.2 The Authority reserves the right to require the Licensee to facilitate the migration of its customers to suitable alternatives so as to minimise any service disruption that may be caused to its customers.

45.3 The Licensee shall continue the operation of the Systems and NBN OpCo Systems and provision of the Services and NBN Wholesale OpCo Services until the Authority's written approval has been obtained under Condition 45.1 and the Licensee has satisfactorily met the Authority's requirements, if any, to which the Authority's approval is made subject to.

46

Rights upon Termination, Suspension or Cancellation

46.1

Any termination, suspension or cancellation of the Licence shall be without prejudice to the rights and remedies which may accrue to the Licensee or the Authority under the Licence or any written law as at the date of termination except that the Licensee shall not have the right to seek a refund of the licence fee or any other fee paid in advance.

47

Exceptions and Limitations on Obligations

47.1

The Licensee shall not be held to have failed to comply with its obligations in this Licence if and to the extent that the Authority is satisfied that it is prevented from complying with those obligations for the following reasons:

- (a) malfunction or failure of any equipment where the Authority determines that reasonable measures were taken beforehand;
- (b) the act or omission of any national authority, local authority or international organisation; or
- (c) any other factor, which, in the opinion of the Authority is beyond the Licensee's reasonable control and which notwithstanding the exercise by it of reasonable diligence and foresight, the Licensee was unable to prevent or overcome.

Provided that the Licensee shall use all reasonable endeavours to terminate with all reasonable speed the factor(s) preventing the carrying out of its obligations and shall resume the performance of its obligations as soon as the factor(s) which prevented the performance thereof is resolved.

48

Compliance with the Law

48.1

The Licensee shall observe and comply with all local laws, including but not limited to the Act, the Telecommunications (Radio-communication) Regulations, the International Telecommunication Convention and any other treaty or convention to which Singapore is a party.

48.2

Nothing in this Licence shall be taken as discharging the Licensee from its obligations to obtain any other right, licence, permit or approval that may be required under any written law in force in Singapore.

49 Governing Law

49.1 This Licence shall be governed by and construed according to the law of Singapore.

50 Service of Notices

50.1 All notices under this Licence shall be in writing and shall be deemed to have been given if sent by hand or pre-paid post or by facsimile to the Licensee's registered address as lodged in the Accounting and Corporate Regulatory Authority.

51 Severability

51.1 Every condition and part thereof shall be construed as a separate and severable provision so that if any Condition and part thereof is held invalid, unenforceable or illegal for any reason, the remainder of the Licence shall remain in full force in every respect.

**Issued on 5 May 1998
Renewed on 1 April 2020**



**Aileen Chia
Director-General (Telecoms & Post)
Info-communications Media Development Authority**

SCHEDE OF INTERPRETATION

In this Licence, unless the context otherwise requires:

- (a) Words importing the singular or plural shall be deemed to include the plural or singular respectively;
- (b) The titles to the provisions of this Licence are for convenience of reference only and are not part of this Licence and shall not in any way affect the interpretation thereof;
- (c) Any word or expression used in this Licence shall have the same meaning as it has in the Act;
- (d) Any reference in this Licence to the Act shall include any regulations made thereunder;
- (e) Any reference in this Licence to any regulations made under the Act shall include any regulations made under the Act until such regulations are revoked or repealed by subsidiary legislation made under the Act;
- (f) Any reference in this Licence to a person shall be deemed to include natural and legal persons;
- (g) Any reference to monetary amounts in this Licence shall be deemed to be denominated in Singapore Dollars; and
- (h) Any reference to any guidelines, codes or framework or documents promulgated by the Authority shall be read as reference to such as may be amended from time to time.
- (i) In the event of any conflict or inconsistency between any Condition of this Licence in relation to the Licensee's provision of NBN Wholesale OpCo Services and the terms of Schedule C1, the terms of Schedule C1 shall prevail.

SCHEDULE A

DESCRIPTION OF THE TELECOMMUNICATION SYSTEMS TO BE ESTABLISHED BY STARHUB LTD

[Licensee specific details have been removed]

SCHEDULE A1

DESCRIPTION OF THE TELECOMMUNICATION SYSTEMS TO BE ESTABLISHED BY STARHUB LTD FOR THE PROVISION OF NBN WHOLESALE OPCO SERVICES

[Licensee specific details have been removed]

SCHEDULE B

DESCRIPTION OF THE TELECOMMUNICATION SERVICES TO BE PROVIDED BY STARHUB LTD

[Licensee specific details have been removed]

SCHEDULE B1

DESCRIPTION OF THE TELECOMMUNICATION SERVICES TO BE PROVIDED BY STARHUB LTD FOR NBN WHOLESALE OPCO SERVICES

[Licensee specific details have been removed]

SCHEDULE C
(Where applicable)

**SPECIFIC TERMS AND CONDITIONS FOR
INTERNATIONAL SIMPLE RESALE SERVICES**

1 Metering

- 1.1 The Licensee shall take all reasonable steps to ensure that any metering equipment used in connection with the international simple resale services (“ISR”) provided under the licence is accurate and reliable.
- 1.2 Upon the written request of the Authority, the Licensee shall conduct tests on metering equipment to assess its accuracy, reliability and conformity to the technical standards, if any, as specified by the Authority. The Licensee shall submit the test results to the Authority within fourteen (14) days after the date of the test or within such other period as may be specified by the Authority.

2 Short Access Code

- 2.1 The Licensee may apply for a 4-digit access code that allow callers to gain access to the ISR. The allocation of the access code will be subject to the availability of such codes and consideration for other usage. The Licensee shall ensure that the access code allocated is used efficiently and effectively.

3 Registration of Subscribers

- 3.1 The Licensee shall provide procedures for service application or registration before any service activation to ensure that subscribers are properly signed up for the international call services and that the right parties are being billed. For the avoidance of doubt, this Condition 3.1 does not apply to prepaid card services.
- 3.2 The Licensee shall maintain a register containing records of its subscribers and their particulars, which shall be made available for inspection by

authorised Singapore government agencies. The records shall contain the following particulars of the subscribers:

- (a) Name;
- (b) Identity Number (as applicable, NRIC number, FIN, passport number of the subscriber and business registration number of the company for corporate customer);
- (c) Billing Address;
- (d) Service Address;
- (e) Contact Information (landline number, mobile number, or email address);
- (f) Service Period (start and end date for each type of service);
- (g) Service Types:
 - (i) Service ID;
 - (ii) Assigned Client IP address and User ID/ User Name (where applicable); and
- (h) Equipment ID (where applicable).

3.3 The records in the register shall be kept by the Licensee for a period of not less than twelve (12) calendar months from the date of termination of the ISR to the subscriber.

4 Call Barring Facilities

4.1 The Licensee shall provide international call barring facilities to any consumer who wishes to bar the Licensee's international call services, regardless of whether the consumer is a subscriber of any service provided by the Licensee, to further prevent any unauthorised or fraudulent activation of international call service.

5

Data Retention Requirements

- 5.1 The Licensee shall maintain the following data records, which shall be made available for inspection by authorised Singapore government agencies:
 - (a) Assigned Source IP address and Date & Time Stamps; and
 - (b) Assigned User ID/User Name (e.g., subscriber records associated with (a)).
- 5.2 The Authority reserves the right to require the Licensee to retain any other details as part of data records as necessary.
- 5.3 All data records shall be kept by the Licensee for a period of not less than twelve (12) calendar months.

SCHEDULE C
(Where Applicable)

**SPECIFIC TERMS AND CONDITIONS FOR
IP TELEPHONY SERVICES**

1 Scope of Services

1.1 The Licence enables the Licensee to provide IP Telephony services using E.164 telephone numbers¹ for such services and assigning such numbers to the Licensee's subscriber (referred to in this Schedule as an "IP telephony number"). Such services allow subscribers to make and receive voice, data and/or video calls using the same telephone number from any domestic or overseas location where broadband Internet access is available.

2 Public Emergency Call Services

2.1 The Licensee shall disclose in advance to its subscribers whether the Services it provides may be used to contact the police emergency service (namely 999 or its substitute number), the fire and ambulance services (namely 995 or its substitute number) and any other national emergency services which the Minister may from time to time designate, for the purpose of notifying such services of any emergency.

2.2 The Licensee shall not charge its subscribers for any use of the Services to contact the emergency services referred to in Condition 2.1 of this Schedule.

2.3 The Licensee shall comply with the technical requirements and safeguards as specified under Condition – "Arrangements for Connection to Systems" in the main body of the Licence, for all calls made to the public emergency services referred to in Condition 2.1 of this Schedule.

2.4 The Authority reserves the right to require the Licensee to comply with additional safety and security safeguards to enhance security measures for public and national safety.

¹ An International Telecommunications Union Telecommunication Standardization Sector ("ITU-T") standard network addressing format for telephone numbers. The E.164 addresses are 15 decimal digits long and include a country code, area or city code, and a local number.

3 Number Portability

3.1 The Licensee shall comply, at its own cost, with any requirement and guidelines established by the Authority on number portability required to be implemented by the Licensee.

4 Registration of Subscribers

4.1 The Licensee shall maintain a register containing records of its subscribers and their particulars which shall be made available for inspection by authorised Singapore government agencies. The records shall contain the following particulars of the subscribers:

- (a) Name;
- (b) Identity Number (as applicable, NRIC number, FIN, passport number of the subscriber and business registration number of the company for corporate customer);
- (c) Billing Address;
- (d) Service Address (where applicable);
- (e) Contact Information (landline number, mobile number or email address);
- (f) Service Period (start and end date for each type of service);
- (g) Service Types:
 - (i) Service ID;
 - (ii) Assigned Client IP address and User ID/User Name (where applicable); and
- (h) Equipment ID (where applicable).

4.2 The Authority reserves the right to require the Licensee to record any other details as necessary in its register of subscribers.

4.3 Before recording the particulars referred to in Condition 4.1 of this Schedule, the Licensee shall:

- (a) where the subscriber is in Singapore, require the production of the subscriber's identity card issued under the National Registration Act (Cap. 201), passport or Employment Pass and make and keep a photocopy of such evidence of identity; or
- (b) where the subscriber is not in Singapore, the Licensee shall use its best efforts to verify the identity of the subscriber through appropriate documents that are recognised by the authorised establishments in the country of purchase.

4.4 The records in the register shall be kept by the Licensee for a period of not less than twelve (12) calendar months from the date of termination of the Services to the subscriber.

5 Registration of Retailers

5.1 The Licensee shall maintain a register containing records of its retailers and their particulars which shall be made available for inspection by authorised Singapore government agencies. The records shall contain the following particulars of the retailer:

- (a) Name, business address and, as applicable, NRIC number, passport number or business registration number of the retailer in Singapore;
- (b) Where the retailer is not based in Singapore, the applicable identification details obtained through appropriate documents that are recognised by the authorised establishments in the country of origin, shall be used instead;
- (c) Contact telephone number(s) of the retailer; and
- (d) IP telephony number accounts allocated by the Licensee to the retailer for sale.

5.2 The Licensee shall ensure that retailers selling its Services obtain the information set out in Conditions 4.1, 4.2 and 4.3 of this Schedule upon the

registration of a subscriber and forward such information to the Licensee within two (2) days of the activation of the subscriber's account.

- 5.3 The Authority reserves the right to require the Licensee to record any other details as necessary in its register of retailers.
- 5.4 The records in the register shall be kept by the Licensee for a period of not less than twelve (12) calendar months from the date of which the retailer ceases to sell the Services of the Licensee.

6 Data Retention Requirements

- 6.1 The Licensee shall maintain the following data records, which shall be made available for inspection by authorised Singapore government agencies:
 - (a) Assigned Source IP address and Date & Time Stamps; and
 - (b) Assigned User ID/ User Name (e.g., subscriber records associated with (a)).
- 6.2 The Licensee shall also maintain Call Detail Records ("CDRs") of all calls made and received through the Service, which are operated and/or provided in Singapore.
- 6.3 All data records including CDRs shall be kept by the Licensee for a period of not less than twelve (12) calendar months.
- 6.4 The Authority reserves the right to require the Licensee to retain any other details as part of data records as necessary.

7 Additional Conditions for Provision of IP Telephony Services Utilising Level "6" Telephone Numbers

- 7.1 Where the Licensee provides any of the Services utilising a level "6" telephone number, it shall comply with Conditions 7.2 to 7.8 in respect of such services (hereinafter referred to as "Level "6" Services"). For the purposes of these Conditions, "Fixed Network Telecommunication Services" means fixed line basic telephony services associated with number level "6".

7.2 The Licensee shall ensure that subscribers of its Level “6” Services must be able to receive and make voice calls from/to subscribers on any public switched telecommunication network, public mobile network or public digital voice network in Singapore.

7.3 The Licensee shall ensure that:

- (a) any person through customer premises equipment that enables the use of its Level “6” Services; and
- (b) any person through its public payphones that enables the use of its Level “6” Services,

may at any time and without charge, contact the relevant police emergency service (namely 999 or its substitute number), the fire and ambulance services (namely 995 or its substitute number) and any other national emergency services which the Minister may from time to time designate to be provided by operators of Fixed Network Telecommunication Services, for the purpose of notifying them of any emergency.

7.4 The Licensee shall ensure that its Level “6” Services are only provided to domestic subscribers (within Singapore) with a Singapore registered and billing address.

7.5 The Licensee shall ensure that its Level “6” Services comply with the same standards and requirements for number portability as may be established by the Authority from time to time for Fixed Network Telecommunication Services.

7.6 The Licensee shall:

- (a) provide directory enquiry services based on an integrated customer database upon request to any person to whom the Licensee provides its Level “6” Services; and
- (b) provide directory enquiry services for subscribers of other licensees in relation to all persons to whom the Licensee provides its Level “6” Services.

7.7 The Licensee shall:

- (a) provide integrated directories to subscribers of its Level “6” Services in accordance with such requirements as may be established by the Authority; and
- (b) exchange all relevant customer data of subscribers of its Level “6” Services with other licensees free-of-charge for the purpose of providing integrated directories and providing integrated directory enquiry services.

7.8 The Licensee shall, if necessary, and subject to charges, terms and conditions to be agreed with other licensees, provide integrated directories for their subscribers. In the event that agreement cannot be reached, the matter shall be determined by the Authority, whose decision shall be final.

SCHEDULE C
(Where Applicable)

**SPECIFIC TERMS AND CONDITIONS FOR
LIVE AUDIOTEX SERVICES**

1 Transmission of the Live Audiotex Services

- 1.1 The Licensee shall comply with the following transmission standards in the delivery of the announcement or programme:
 - (a) there shall be no delay in starting the announcement or programme when a call is connected;
 - (b) each of the live Audiotex services shall be assigned a different telephone number;
 - (c) there shall be no interruptions during the announcement or programme; and
 - (d) such other standards as may be specified by the Authority.
- 1.2 The Licensee shall ensure that the number of attempted calls at any time does not significantly exceed the number of call-in lines for the live Audiotex services and shall subscribe for additional lines from licensed Facilities-Based Operators to adequately handle calls for the live Audiotex services and to prevent congestion to other users of the public telecommunication network.
- 1.3 The Licensee shall not, except with the prior arrangement with the licensed Facilities-Based Operator, organise any mass calling event which will generate a high influx of calls to the live Audiotex services.
- 1.4 The Licensee shall not enable callers to communicate amongst themselves directly in real-time.
- 1.5 The Licensee shall ensure that the Value-Added Network and/or the live Audiotex services provided through it are not used for any unlawful purpose.

2**Content and Accuracy of Announcements/Programmes**

2.1

The Licensee shall be solely responsible for the content and its accuracy and shall obtain all necessary approvals from the relevant authorities in Singapore.

2.2

The Licensee shall indemnify and keep indemnified at all times the Authority against all claims for libel, slander, infringement of Intellectual Property rights or any other liability whatsoever arising from or in connection with the information transmitted or received through the Value-Added Network.

3**Announcement of Call Duration**

3.1

The Licensee shall arrange for the live operator to announce the call duration to callers at regular intervals of a maximum of 15 minutes or less. The Licensee may either charge an information fee on per minute basis or a fixed fee on a per call basis. If the Licensee decides not to make regular announcements of call duration, it shall only charge a fixed fee on a per call basis. The fixed fee shall also be applicable to mixed pre-recorded and live Audiotex services that provide an option for a caller to talk to a live operator after listening to a pre-recorded information or programme.

4**Announcement of Call Charges**

4.1

The Licensee shall ensure that its current call charges are published in all advertisements for the live Audiotex services.

4.2

The Licensee shall, in addition, announce the current call charges for the live Audiotex services at the beginning of the call. The Licensee shall provide a grace period during which calls are not charged for:

- (a) the first 6 seconds of a call where the charge announcement lasts 4 seconds; or
- (b) the first 12 seconds of a call where the charge announcement lasts 10 seconds.

5

Data Retention Requirements

- 5.1 The Licensee shall maintain Call Detail Records (“CDRs”) of all calls made and received through the Service, which are operated and/or provided in Singapore.
- 5.2 All CDRs shall be kept by the Licensee for a period of not less than twelve (12) calendar months.
- 5.3 The Authority reserves the right to require the Licensee to retain any other details as part of data records as necessary.

SCHEDULE C
(Where Applicable)

**SPECIFIC TERMS AND CONDITIONS FOR
MANAGED DATA NETWORK SERVICES**

1 Technical Compatibility

1.1 The Licensee shall comply with any technical specifications prescribed by the Authority for the purposes of ensuring technical compatibility, avoiding technical harm to the telecommunication network and/or systems of Facilities-Based Operators or preventing safety hazards to personnel in the connection of telecommunication equipment and/or systems to the network.

2 Metering

2.1 The Licensee shall take all reasonable steps to ensure that any metering equipment used in connection with the managed data network services (“MDNS”) provided under the licence is accurate and reliable.

2.2 Upon the written request of the Authority, the Licensee shall conduct tests on metering equipment to assess its accuracy, reliability and conformity to the technical standards, if any, as specified by the Authority. The Licensee shall submit the test results to the Authority within fourteen (14) days after the date of the test or within such other period as may be specified by the Authority.

3 Registration of Subscribers

3.1 The Licensee shall maintain a register containing records of its subscribers and their particulars, which shall be made available for inspection by authorised Singapore government agencies. The records shall contain the following particulars of the subscribers:

- (a) Name;
- (b) Identity Number (as applicable, NRIC number, FIN, passport number of the subscriber and business registration number of the company for corporate customer);

- (c) Billing Address;
- (d) Service Address;
- (e) Contact Information (landline number, mobile number, or email address);
- (f) Service Period (start and end date for each type of service);
- (g) Service Types:
 - (i) Service ID;
 - (ii) Assigned Client IP address and User ID/User Name (where applicable); and
- (h) Equipment ID (where applicable).

3.2 The records in the register shall be kept by the Licensee for a period of not less than twelve (12) calendar months from the date of termination of the MDNS to the subscriber.

4 Data Retention Requirements

4.1 The Authority reserves the right to require the Licensee to retain any details as part of data records as necessary.

SCHEDULE C
(Where Applicable)

**SPECIFIC TERMS AND CONDITIONS FOR
PUBLIC INTERNET ACCESS SERVICES**

1 Scope of Services

1.1 The Licence enables the Licensee to establish, install and maintain a public Internet access facility or system for the provision of public Internet access services in Singapore.

2 Electronic-mail Address Portability

2.1 The Licensee shall comply, at its own cost, with any guidelines established by the Authority, on electronic-mail address portability.

3 Content

3.1 The Licensee shall comply with any term and condition as may be imposed by the Authority for the content that is transmitted through the Systems.

4 Publication of Information in Relation to Broadband Internet Access Services

4.1 The Licensee shall comply with such frameworks as may be established by the Authority for the publication of information pertaining to broadband Internet access services offered by the Licensee, including but not limited to the access speeds, throughput, round-trip latency, webpage loading time and any other information that the Authority may require the Licensee to publish.

5 Registration of Subscribers

5.1 The Licensee shall maintain a register containing records of its subscribers and their particulars which shall be made available for inspection by authorised Singapore government agencies. The records shall contain the following particulars of the subscribers:

- (a) Name;
- (b) Identity Number (as applicable, NRIC number, FIN, passport number of the subscriber and business registration number of the company for corporate customer);
- (c) Billing Address (where applicable);
- (d) Service Address (where applicable);
- (e) Contact Information (landline number, mobile number, or email address);
- (f) Service Period (start and end date for each type of service);
- (g) Service Types:
 - (i) Service ID;
 - (ii) Assigned Client IP address and User ID/User Name (where applicable); and
- (h) Equipment ID (where applicable).

5.2 The Authority reserves the right to require the Licensee to record any other details as necessary in its register of subscribers.

5.3 Before recording the particulars referred to in Condition 5.1 of this Schedule, the Licensee shall:

- (a) where the subscriber is in Singapore, require the production of the subscriber's identity card issued under the National Registration Act (Cap. 201), passport or Employment Pass and make and keep a photocopy of such evidence of identity; or
- (b) where the subscriber is not in Singapore, the Licensee shall use its best efforts to verify the identity of the subscriber through appropriate documents that are recognised by the authorised establishments in the country of purchase.

5.4 The records in the register shall be kept by the Licensee for a period of not less than twelve (12) calendar months from the date of termination of the Services to the subscriber.

6 Registration of Retailers

6.1 The Licensee shall maintain a register containing records of its retailers and their particulars which shall be made available for inspection by authorised Singapore government agencies. The records shall contain the following particulars of the retailer:

- (a) Name, business address and, as applicable, NRIC number, passport number or business registration number of the retailer in Singapore;
- (b) Where the retailer is not based in Singapore, the applicable identification details obtained through appropriate documents that are recognised by the authorised establishments in the country of origin, shall be used instead; and
- (c) Contact telephone number(s) of the retailer.

6.2 The Licensee shall ensure that retailers selling its Services obtain the information set out in Conditions 5.1, 5.2 and 5.3 of this Schedule upon the registration of a subscriber and forward such information to the Licensee within two (2) days of the activation of the subscriber's account.

6.3 The Authority reserves the right to require the Licensee to record any other details as necessary in its register of retailers.

6.4 The records in the register shall be kept by the Licensee for a period of not less than twelve (12) calendar months from the date of which the retailer ceases to sell the Services of the Licensee.

7 Data Retention Requirements

7.1 The Licensee shall maintain the following data records, which shall be made available for inspection by authorised Singapore government agencies:

- (a) Assigned Source IP address and Date & Time Stamps; and

(b) Assigned User ID/ User Name (e.g., subscriber records associated with (a)).

7.2 The Authority reserves the right to require the Licensee to retain any other details as part of data records as necessary.

7.3 All data records shall be kept by the Licensee for a period of not less than twelve (12) calendar months.

SCHEDULE C
(Where Applicable)

**SPECIFIC TERMS AND CONDITIONS FOR
RESALE OF LEASED CIRCUIT SERVICES**

1 Declaration of Usage

1.1 The Licensee shall ensure that the subscribers declare, in writing, the usage of the leased circuit and their compliance with all licensing and regulatory conditions and requirements of the Authority. The Licensee shall terminate its agreement with the subscribers if such subscribers are found to infringe any term and condition of the Licence or any provision of the Act.

2 Registration of the Subscribers

2.1 The Licensee shall maintain a register containing records of its subscribers and their particulars which shall be made available for inspection by authorised Singapore government agencies. The records shall contain the following particulars of the subscribers:

- (a) Name;
- (b) Identity Number (as applicable, NRIC number, FIN, passport number of the subscriber and business registration number of the company for corporate customer);
- (c) Billing Address;
- (d) Service Address;
- (e) Contact Information (landline number, mobile number, or email address);
- (f) Service Period (start and end date for each type of service);
- (g) Service Types:

- (i) Service ID;
- (ii) Assigned Client IP address and User ID/User Name (where applicable); and

(h) Equipment ID (where applicable).

2.2 The records in the register shall be kept by the Licensee for a period of not less than twelve (12) calendar months from the date of termination of the Services to the subscriber.

3 Marketing

3.1 The Licensee shall state clearly in all marketing and promotional communications that the Licensee is a leased circuit reseller.

4 Data Retention Requirements

4.1 The Authority reserves the right to require the Licensee to retain any details as part of data records as necessary.

SCHEDULE C
(Where Applicable)

**SPECIFIC TERMS AND CONDITIONS FOR
STORE-AND-FORWARD VALUE-ADDED NETWORK SERVICES**

1 Establishment of Service Nodes

1.1 The Licensee is required to establish a service node in Singapore and make available the information on the routing table, subscriber database, call traffic statistics and/or other records maintained by the service node for inspection whenever requested. The Licensee without a service node in Singapore may provide Store & Forward Value-Added Network services through a local access node which is connected to the public switched telecommunication networks provided by a Facilities-Based Operator licensed by the Authority.

2 Transmission of Value-Added Network traffic over the Internet

2.1 The Licensee may choose to carry its Value-Added Network traffic over dedicated leased circuits or switched/permanent virtual circuits such as frame relay circuits. The Licensee may also choose to transmit its VAN traffic through virtual private network links over the Internet.

SCHEDULE C
(Where Applicable)

**SPECIFIC TERMS AND CONDITIONS FOR
VIRTUAL PRIVATE NETWORK SERVICES**

1 Technical Compatibility

1.1 The Licensee shall comply with any technical specifications prescribed by the Authority for the purposes of ensuring technical compatibility, avoiding technical harm to the telecommunication network of any Facilities-Based Operator or preventing safety hazards to the personnel in the connection of telecommunication equipment and/or systems to the network.

2 Metering

2.1 The Licensee shall take all reasonable steps to ensure that any metering equipment used in connection with the Virtual Private Network (“VPN”) services operated under the licence is accurate and reliable.

2.2 Upon the written request of the Authority, the Licensee shall conduct tests on metering equipment to assess its accuracy, reliability and conformity to the technical standards, if any, as specified by the Authority. The Licensee shall submit the test results to the Authority within fourteen (14) days after the date of the test or within such other period as may be specified by the Authority.

3 Registration of Subscribers

3.1 The Licensee shall maintain a register containing records of its subscribers and their particulars, which shall be made available for inspection by authorised Singapore government agencies. The records shall contain the following particulars of the subscribers:

- (a) Name;
- (b) Identity Number (as applicable, NRIC number, FIN, passport number of the subscriber and business registration number of the company for corporate customer);

- (c) Billing Address;
- (d) Service Address;
- (e) Contact Information (landline number, mobile number, or email address);
- (f) Service Period (start and end date for each type of service);
- (g) Service Types:
 - (i) Service ID;
 - (ii) Assigned Client IP address and User ID/User Name (where applicable); and
- (h) Equipment ID (where applicable).

3.2 The records in the register shall be kept by the Licensee for a period of not less than twelve (12) calendar months from the date of termination of the VPN services to the subscriber.

4 Data Retention Requirements

4.1 The Authority reserves the right to require the Licensee to retain any details as part of data records as necessary.

SCHEDULE C1

SPECIFIC TERMS AND CONDITIONS FOR NBN WHOLESALe OPCo SERVICES

1. Definitions

1.1 For the purposes of this Schedule the words and expressions listed below shall have the meanings assigned to them except where the context otherwise requires:

- (a) “**Active Network**” means the active transmission components of the NGNBN, implemented/being implemented over the Passive Network by the Licensee;
- (b) “**Active Network Specifications**” means the technical requirements specified in the Contract;
- (c) “**Ancillary Mandated Services**” means any services ancillary to and reasonably required for the provision of any Basic Mandated Service including without limitation the services listed in paragraph 4.2 of this Schedule;
- (d) “**Ancillary Mandated Services Qualifying Person**” means any Basic Mandated Services Qualifying Person or such other person as IMDA may direct as entitled to obtain Basic Mandated Services;
- (e) “**Ancillary Services**” means any services ancillary to and reasonably required for the provision of any Basic Service;
- (f) “**Basic Mandated Services**” means the services listed in paragraph 3.1 of this Schedule;
- (g) “**Basic Mandated Services Qualifying Persons**” means:
 - (i) telecommunication licensees; and
 - (ii) broadcasting licensees;
- (h) “**Basic Services**” means Layer 1.5 Services, Layer 2 Services, Layer 3 Services;
- (i) “**broadcasting licensee**” means any holder of a licence granted under the *Broadcasting Act* (Cap. 28) but excludes class licensees;
- (j) “**Central Office**” or “**CO**” means a location or building where the NGNBN NetCo provides access to the Passive Network and co-location facilities;

- (k) “**Co-location Services**” means the provision of co-location space and services within a CO as specified in the Active Network Specifications used or to be used for the purposes of connecting to the Active Network and the provisioning of services over the Active Network to a significant portion of the End-User base;
- (l) “**Commercial Offering**” means an offer for NBN Wholesale OpCo Services on prices, terms and conditions that are negotiated by the parties;
- (m) “**Contract**” means the contract between IMDA and Nucleus Connect Pte Ltd dated 4 May 2009 entered into pursuant to the RFP;
- (n) “**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;
- (o) “**End-User**” means a business or residential subscriber of any retail telecommunication service or retail broadcasting service in Singapore;
- (p) “**ICO**” means the standard interconnection offer submitted by the Licensee and approved by IMDA;
- (q) “**Layer 2 Services**” means connectivity services performed at the “data link layer” of both the OSI and TCP/IP models, and which minimally include Ethernet frame transmission services;
- (r) “**Layer 3 Services**” means connectivity services performed at the “network layer” of the OSI model and to the “network/Internet layer” of the TCP/IP model, and which minimally include IP packet transmission services;
- (s) “**Mandated Services**” means the Basic Mandated Services, Ancillary Mandated Services and such other services that IMDA may specify, including NBN Wholesale OpCo Services served using PON (including Gigabit PON and 10GPON technologies) and/or AE technologies and any bundled collection of the preceding;
- (t) “**NetCo Contract**” means the contract between IMDA and the NGNBN NetCo dated 20 October 2008;
- (u) “**NetCo Licence**” means the FBO licence granted by IMDA to the NGNBN NetCo in relation to the provision of telecommunication services;
- (v) “**NetCo Service**” means any service that the NGNBN NetCo offers to provide under the terms of the NetCo Licence;
- (w) “**NGNBN**” means the “wired” component of Singapore’s Next Generation National Infocomm Infrastructure (Next Gen NII). This comprises both the Passive Network and the Active Network;

- (x) **NGNBN NetCo**" means OpenNet Pte. Ltd., including its successors and assigns;
- (y) **Non-Discrimination Requirements**" means the requirements set out in Appendix 1 to this Schedule C1;
- (z) "**Non-Building Address Point**" or "**NBAP**" means a location in mainland Singapore or connected islands other than a Physical Address;
- (aa) "**Non-Mandated Service**" means any NBN Wholesale OpCo Services that is not a Mandated Service;
- (bb) "**Non-Residential Premise**" means any premise other than a Residential Premise;
- (cc) "**OpCo Interconnection Code**" means the Code of Practice for Next Generation National Broadband Network OpCo Interconnection;
- (dd) "**Open Systems Interconnection (OSI) Layers**" or "**OSI**" means the ISO- defined networking framework for implementing protocols in seven layers, namely Layer 1 – Physical, Layer 2 – Data Link, Layer 3 – Network, Layer 4 – Transport, Layer 5 – Session, Layer 6 – Presentation, Layer 7 – Application;
- (ee) "**Passive Network**" means the passive infrastructure of the NGNBN, implemented/being implemented pursuant to the terms and conditions of the NetCo Contract;
- (ff) "**Patching Services**" means patching, splitting and splicing services as specified in the Active Network Specifications;
- (gg) "**Physical Addresses**" mean Residential Premises and Non-Residential Premises located in mainland Singapore or connected islands;
- (hh) "**Qualifying Persons**" mean Basic Mandated Services Qualifying Persons and Ancillary Mandated Services Qualifying Persons and a "**Qualifying Person**" means any one of a Basic Mandated Services Qualifying Person or Ancillary Mandated Services Qualifying Person;
- (ii) "**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;
- (jj) "**Retail Service Provider**" or "**RSP**" means any person providing retail services to End-Users using the NGNBN and/or other networks in Singapore;
- (kk) "**RFP**" means the Request for Proposal for Singapore's Next Generation National Broadband Network - Operating Company (OpCo) issued by IMDA on 7 April 2008, including all subsequent addenda and

amendments thereto;

(ll) “**Service Port**” means the connection ports which the Licensee shall offer to connect to the Active Network for the purpose of delivering and/or receiving NBN Wholesale OpCo Services;

(mm) “**TCP/IP**” means a set of communications protocols used for transmitting data between computers and as the basis for standard protocols on the Internet;

(nn) “**Telecom and Media Competition Code**” means the Code of Practice for Competition in the Provision of Telecommunication and Media Services;

(oo) “**telecommunication licensee**” means any holder of a licence granted under the Act for the provision of facilities-based operations and/or services-based operations; and

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

2. Non-Discrimination Requirements

2.1 The Licensee shall comply with the Non-Discrimination Requirements.

3. Mandated Services

3.1 The Licensee shall offer the following Basic Mandated Services between Service Ports to Basic Mandated Services Qualifying Persons:

- (a) the Layer 2 Services and Layer 3 Services specified in Appendix 2 to this Schedule;
- (b) any other services that the Authority may determine to be Basic Mandated Services.

3.2 The Licensee shall offer Ancillary Mandated Services to the Ancillary Mandated Services Qualifying Persons including without limitation:

- (a) Co-location Services at Service Ports, other than at a Service Port at a CO;
- (b) Patching Services at Service Ports, other than at a Service Port at a CO;
- (c) Platform Connection Service;
- (d) Layer 3 Virtual Routing Domain Setup Service;

- (e) Interoperability Testing Service; and
- (f) any other services that IMDA may determine to be Ancillary Mandated Services.

3.3 The Licensee shall offer access to Service Ports at the locations specified in the ICO.

3.4 The Licensee may not offer the Mandated Services to any person other than:

- (a) a Qualifying Person; or
- (b) such other person on such terms and conditions as IMDA may require.

4. **The ICO**

4.1 At the Qualifying Person's option, the Licensee shall and shall only provide the Mandated Services to a Qualifying Person:

- (a) on the prices, terms and conditions of the ICO;
- (b) on the prices, terms and conditions of a Customised Agreement negotiated with the Licensee and approved by IMDA in accordance with the terms set out in the OpCo Interconnection Code; or
- (c) on the same prices, terms and conditions as an existing Customised Agreement, between the Licensee and a similarly situated Qualifying Person that has been previously approved by IMDA in accordance with the terms set out in the OpCo Interconnection Code.

4.2 The Licensee shall not impose any unreasonable minimum contractual periods or any unreasonable early termination penalty for any Mandated Service offered in the ICO.

4.3 Failure by the Licensee to specify the prices, terms and conditions of any requirements necessary to ensure end-to-end connectivity of any Mandated Service over the Active Network 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 IMDA, the Licensee shall not require any additional terms and conditions which the Licensee has not expressly accounted for in the ICO.

5. Confidentiality and Security of Information

5.1 The Licensee shall initiate, implement and maintain a set of principles and guidelines of their information security management of data pertaining to End-User and/or RSP information. The Licensee shall where applicable observe the information security management guidelines as stipulated in ISO/IEC 27002:2005, Information Technology – Security Techniques – Code of Practice for Information Security Management.

5.2 All of the Licensee's databases pertaining to End-User and/or RSP information shall be kept by the Licensee in Singapore.

5.3 The Licensee shall ensure strict control measures for access to any of the Licensee's databases pertaining to End-User and/or RSP information.

5.4 Where the Licensee has established any connections and access from overseas locations to its databases pertaining to End-User and/or RSP information, the Licensee shall ensure that all such connections are encrypted.

5.5 IMDA reserves the right to require the Licensee to implement any other security requirements as necessary.

5.6 The Licensee shall adequately log all access to the Licensee's databases pertaining to End-User and/or RSP information. The access logs shall include minimally the identification of the requesting party for data (if applicable), the party accessing the data, the date/time of the transaction and the information that were accessed.

5.7 IMDA reserves the right to require the Licensee to log and submit any other details in the access logs as necessary.

5.8 The Licensee shall verify the access logs on a regular basis to ensure all access to the Licensee's databases pertaining to End-User and/or RSP information are authorised.

5.9 All access logs to the Licensee's databases pertaining to End-User and/or RSP information shall be submitted to IMDA on request.

Amended on 13 December 2024

6. Separate Accounts

6.1 The Licensee shall maintain separate sets of accounts for the NBN Wholesale OpCo Services pertaining to Gigabit PON. IMDA reserves the right to require the Licensee to maintain separate sets of accounts in respect of any or all of the NBN Wholesale OpCo Services provided by the Licensee.

APPENDIX 1

REGULATORY REQUIREMENTS TO ENSURE NON-DISCRIMINATORY BEHAVIOUR

1. Definitions

1.1. For the purposes of this Appendix, the words and expressions listed below shall have the meanings assigned to them except where the context otherwise requires:

(a) “Affiliated Operator”, in relation to the Licensee, means a telecommunication licensee or broadcasting licensee qualified to purchase NBN Wholesale OpCo Services from the Licensee:

(i) that has an attributable interest in the Licensee of 5 percent or more (parent);

(ii) in which the Licensee has an attributable interest of 5 percent or more (subsidiary); or

(iii) in which any parent of the Licensee has an attributable interest of 5 percent or more (sibling), provided that an entity will not be deemed to be an Affiliated Operator based solely on the fact that the ultimate parent of such entity and the Licensee has a passive interest in both parties.

For the purposes of determining a relevant party’s attributable interest, the “sum-the-percentages” methodology shall be applied successively at each level of the ownership chain. For example, if the relevant telecommunication licensee has legal or beneficial ownership of 100 percent of the voting shares of Entity A, and Entity A has legal or beneficial ownership of 50 percent of the voting shares of Entity B, and Entity B has legal or beneficial ownership of 50 percent of the voting shares in the Licensee, then the relevant telecommunication licensee will be deemed to have a 25 percent attributable interest in the Licensee. In this case, the relevant telecommunication licensee will be deemed to be an “Affiliated Operator”;

(b) “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;

(c) “Commercial Information” means information relating to any NBN Wholesale OpCo Services, in whatever form, including any of the following:

- (i) service development;
- (ii) pricing,
- (iii) marketing strategy and intelligence;
- (iv) service launch dates;
- (v) costs;
- (vi) projected sales volumes; and
- (vii) network coverage and capabilities;

excluding any such information as agreed by IMDA in writing from time to time;

(d) “Customer Confidential Information” means any information, in whatever form, that is in the Licensee’s possession or knowledge relating to any Operator that has obtained, is obtaining, or intends to obtain, the Licensee’s services, but excluding any information which:

- (i) is publicly available otherwise than by reason of a breach of confidentiality;
- (ii) is obtained by the Licensee or received from a third party without any restriction on disclosure;
- (iii) is required to be disclosed by law; or
- (iv) is agreed as not being customer confidential information by IMDA in writing from time to time;

(e) “Equivalence of Inputs” or “EOI” means that where the Licensee provides an NBN Wholesale OpCo Services or related Migration Process to any Affiliated Operator, the Licensee must:

- (i) provide the same service to all other Operators;

- (ii) deliver that service to the Affiliated Operator and all other Operators on the same timescales and terms and conditions (including price and service levels);
- (iii) deliver that service to the Affiliated Operator and all other Operators by means of the same systems and processes (including using the same OSS/BSS Connection Service and Management Information Systems), with the same degree of reliability and performance to the Affiliated Operator and all other Operators;
- (iv) provide the Affiliated Operator and all other Operators with the same Commercial Information about those assets, services, systems and processes; and

In this context, “the same” means exactly the same subject only to:

- (i) trivial differences; and
- (ii) such other difference as may be agreed by IMDA in writing from time to time;

(f) “Management Information Systems” means those management information systems which hold Commercial Information and/or Customer Confidential Information;

(g) “Migration Process” means a process by which:

- (i) an Operator transfers from using one service to another service;
- (ii) a subscriber of an Operator transfers from using one service to another service, whether supplied by the same or different Operators; or
- (iii) any combination of (i) and (ii) above;

(h) “Non-Affiliated Operator” means any telecommunication licensee or broadcasting licensee qualified to purchase NBN Wholesale OpCo Services from the Licensee that is not an Affiliated Operator;

- (i) “Performance Indicators” means the indicators proposed by the Licensee for the purposes of measuring the Licensee’s compliance with the requirements of this Appendix;
- (j) “Operators” means both Affiliated Operators and Non-Affiliated Operators, and “Operator” shall mean any one of the Affiliated Operators or Non-Affiliated Operators;
- (k) “Operations Support System” or “OSS” means the operations support system used in the maintenance or network inventory, provisioning of services and management of faults;
- (l) “OSS/BSS Connection Service” means a service offered by the Licensee in which the OSS/BSS of an Operator is interconnected with the Licensee’s OSS/BSS, for the direct, fully electronic interchange of data relating or relevant to the Operator;
- (m) “provide” includes an offer to provide, and “provision” shall be interpreted accordingly; and
- (n) “service” means service and/or product as appropriate.

1.2. Any other defined term used in this Appendix that is not defined in paragraph 1.1 of this Appendix shall have the meaning given to that defined term in Schedule C1 of this Licence.

2. Duty not to Discriminate and to Apply Equivalence of Inputs

2.1. The Licensee shall treat all Operators in a non-discriminatory manner in all respects.

2.2. The Licensee shall apply EOI to:

- (a) all NBN Wholesale OpCo Services that it provides; and
- (b) all Migration Processes for such NBN Wholesale OpCo Services which are either internal to the Licensee or are otherwise within the Licensee’s control.

2.3 The Licensee shall ensure that the way in which it receives and evaluates requests for the provision of any NBN Wholesale OpCo Services or Migration Processes is the same for Affiliated Operators and Non-Affiliated Operators.

3. Operation of Systems

3.1 The Licensee shall ensure that the use and operations of all systems in the provision of the NBN Wholesale OpCo Services (including but not limited to its OSS/BSS Connection Service and Management Information Systems) does not result in the Licensee's Commercial Information and Customer Confidential Information being made available to any Affiliated Operator by any means whatsoever, whether directly or indirectly.

3.2 The Licensee shall not make any network or system design decision that discriminates in favour of any Affiliated Operator.

4. Independence of Licensee

4.1 The Licensee must operate in all respects at arm's length from Affiliated Operators. This includes ensuring that its transactions with Affiliated Operators are conducted and carried out in a way and manner as if the parties were not affiliated to each other.

4.2 All transactions between the Licensee and Affiliated Operators in relation to provision of the NBN Wholesale OpCo Services must be in writing and include all the terms and conditions of the transaction, including price. For the purposes of this requirement:

(a) where any transaction is executed via an online ordering platform, the Licensee shall maintain the electronic records of such transaction for a period of three (3) years from the date of such transaction and ensure that all relevant information pertaining to such transaction may be retrieved and reproduced in perceivable form for submission to IMDA upon request;

(b) in relation to transactions for the provision of Mandated Services, the prices, terms and conditions to be included shall be in accordance with the ICO or a Customised Agreement as approved by IMDA; and

- (c) in relation to transactions for the provision of Non-Mandated Services, the prices, terms and conditions to be included shall be in accordance with a Commercial Offering for which the Licensee has notified IMDA.

5. Behaviour and incentives of Employees, Agents and Contractors

5.1 The Licensee shall ensure that its employees, agents and contractors are aware of and comply with the requirements of this Appendix. Without limitation, the Licensee shall:

- (a) ensure that its employees, agents and contractors, when making any decisions in relation to the supply of services, act in good faith and in what they believe to be in the best interests of the Licensee;
- (b) ensure that its employees, agents and contractors, in doing or omitting to do anything in relation to the provision of services, act in a way that does not discriminate in favour of any Affiliated Operator at the expense of any Non-Affiliated Operator;
- (c) carry out regular training programmes to educate its employees, agents and contractors on the requirements of this Appendix; and
- (d) implement a robust disciplinary regime to address any non-compliance by its employees, agents and contractors.

6. Brand

6.1 The Licensee shall develop and maintain a separate brand(s) for itself and for all its services which shall not relate to (or in any way convey the impression that it relates to) and/or integrate any aspect of the brand of Affiliated Operators or any of their respective services.

7 Reporting to IMDA

7.1 The Licensee shall submit to IMDA:

- (a) measurements of the Licensee's performance against the Performance

Indicators drawn up pursuant to paragraph 8 below, to be submitted on a quarterly basis from the Licensee's commencement of operations or upon request by IMDA; and

- (b) a report of all complaints and complaint handling concerning the Licensee's compliance with the requirements of this Appendix, including the findings and conclusions of investigations into these complaints, to be submitted on a quarterly basis from the Licensee's commencement of operations or upon request by IMDA.

8 Performance Indicators

8.1 Upon notification by IMDA, the Licensee must propose for IMDA approval key performance indicators for the purposes of measuring its compliance with the requirements of this Appendix and in particular, the Licensee's provision of services to the Licensee itself and Affiliated Operators as compared to the provision of services to Non-Affiliated Operators ("Performance Indicators").

8.2 The Performance Indicators, in relation to any and all of its NBN Wholesale OpCo Services and Migration Processes, shall at the minimum include:

- (a) the average time that the Licensee takes to respond to a request for NBN Wholesale OpCo Services or Migration Process;
- (b) the percentage of requests for an NBN Wholesale OpCo Services or Migration Process that are completed on time;
- (c) the average number of faults reported for an NBN Wholesale OpCo Services or Migration Process;
- (d) the average time taken to rectify a fault for an NBN Wholesale OpCo Services or Migration Process; and
- (e) the percentage of faults rectified on time for an NBN Wholesale OpCo Services or Migration Process;

for each of the Licensee itself and its Affiliated Operators, and separately for Non-Affiliated Operators.

8.3 The Performance Indicators, as may be amended or added to from time to time at IMDA's discretion, shall be deemed to be incorporated into this Appendix for the purposes of compliance by the Licensee.

9 IMDA's Right to Issue Directions, Conduct Audit and Require Accounting Separation

9.1 IMDA shall have the right to issue such directions to the Licensee as IMDA considers appropriate in order to ensure the Licensee's compliance with the requirements of this Appendix. The Licensee shall strictly and without any undue delay comply with such directions.

9.2 IMDA shall have the right, by itself or through external auditors appointed by IMDA, to conduct audits of any aspect of the Licensee's operations at any time in order to ensure Licensee's compliance with the requirements of this Appendix. The Licensee shall render its fullest co-operation to IMDA and provide all necessary support, information and assistance to IMDA in relation to the conduct of such audits.

9.3 If any audit reveals a non-compliance of this Appendix by the Licensee, the Licensee shall immediately take all steps necessary to rectify such non-compliance, and IMDA shall be entitled to conduct subsequent audits in order to ensure that such non-compliance has been rectified. The Licensee shall indemnify IMDA in respect of all costs and expenses incurred arising out of or in connection with the conduct of such subsequent audits, including but not limited to the fees of independent auditors appointed by IMDA, until such subsequent audits confirms that the non-compliance has been rectified.

9.4 Nothing in the foregoing shall prejudice or preclude IMDA's right to take such action against the Licence for breach of the requirements of this Appendix in accordance with IMDA's powers, functions and duties under the Telecommunications Act 1999 or in this Licence.

9.5 IMDA reserves the right to require the Licensee to apply accounting separation in respect of any or all of the NBN Wholesale OpCo Services provided by the Licensee.

APPENDIX 2

BASIC MANDATED SERVICES

1. Residential Per-End-User Connection;
2. Non-Residential Per-End-User Connection;
3. NBAP Per-End-User Connection;
4. QP Ethernet Virtual Private Line Service (QP-EVPL);
5. Provider Backbone Ethernet Virtual Connection Service (PB-EVC);
6. Aggregation Ethernet Virtual Connection Service (AG-EVC);
7. Layer 2 VPN Service;
8. Layer 2 Ethernet LAN Service;
9. Layer 3 VPN Service; and
10. IP Multicast Connection Service