



**LICENCE TO PROVIDE  
FACILITIES-BASED OPERATIONS GRANTED BY  
THE INFO-COMMUNICATIONS MEDIA DEVELOPMENT AUTHORITY  
TO NUCLEUS CONNECT PTE LTD UNDER SECTION 5 OF  
THE TELECOMMUNICATIONS ACT (CHAPTER 323)**

**ISSUED ON 30 OCTOBER 2009**

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**LICENCE TO PROVIDE FACILITIES-BASED OPERATIONS  
GRANTED BY THE INFO-COMMUNICATIONS DEVELOPMENT  
AUTHORITY OF SINGAPORE TO  
NUCLEUS CONNECT PTE LTD  
UNDER SECTION 5 OF THE TELECOMMUNICATIONS ACT (CHAPTER 323)  
ON 30 OCTOBER 2009**

**PART I: THE LICENCE**

On 30 October 2009, the Info-communications Development Authority of Singapore (hereinafter referred to as “IDA”), in exercise of its powers under Section 5 of the Telecommunications Act (Cap. 323) (hereinafter referred to as “the Act”) hereby grants to Nucleus Connect Pte Ltd (“the Licensee”) a licence (the “Licence”) to establish, install and maintain the telecommunication systems specified in Schedule A (hereinafter referred to as “the Systems”); to operate and provide the telecommunication services specified in Schedule B (hereinafter referred to as “the Services”), subject to the terms and conditions set out herein; and the specific terms and conditions set out in Schedule C.

**1. Period of Licence**

- 1.1 The Licence shall come into force on the date hereof and shall be valid until 31 March 2034, unless suspended or cancelled by IDA in accordance with Condition 39 or terminated by the Licensee in accordance with Condition 40 of this Licence.
- 1.2 The Licence may be further renewed for such period as IDA thinks fit and subject to such terms and conditions as may be specified by IDA under Section 5 of the Act.

**2. Payment of Licence Fee\***

(\*Condition 2 was amended on 1 January 2013.)

- 2.1 The Licensee shall pay to IDA 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 \$80,000;

(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 \$80,000 shall be payable by the Licensee within 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 accounts submitted to IDA.
- 2.4 For the subsequent years, the annual licence fee based on the last available audited accounts, shall be paid in advance on the first day of the Licensee's financial year, subject to the minimum fee of \$80,000 and subject to adjustment when more recent audited accounts 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 IDA 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 IDA, which interest shall accrue from day to day and shall be calculated on the basis of the actual number of days elapsed and a 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 IDA an audited AGTO statement, not later than 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 IDA 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 IDA.

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

**4. Description of Systems and Services**

4.1 The Licensee shall maintain and operate the Systems as described in Schedule A for the provision of the Services as described in Schedule B subject to the specific terms and conditions set out in Schedule C. The Licensee shall not operate or provide any system or service not described in Schedules A and B except with the prior written approval of IDA.

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 IDA such technical and/or non-technical information as may be required by IDA within such period as may be specified by IDA.

**5. Licence Application Proposals**

5.1 Without prejudice to any of the Licensee's obligations under this Licence, the Licensee shall abide with its proposals on network rollout, range of services, quality of service standards, pricing and service provisioning schemes and any other commitments as submitted to IDA in its licence application.

**6. Performance Bond**

6.1 The Licensee shall within 28 days following the award of the Licence, provide IDA with a performance bond to secure the obligations of the Licensee under Schedule D in the form of a Banker's Guarantee made in favour of IDA. IDA will specify in detail the terms and conditions of the performance bond for the Licensee based on the Licensee's application commitments and any additional terms and conditions deemed necessary by IDA.

6.2 The Licensee shall not be released from any of its obligations under the Licence by any breach or forfeiture of the performance bond.



## **PART II: BASIC OBLIGATIONS OF LICENSEE**

### **7. Universal Service Obligation**

7.1 The Licensee shall establish, install, maintain and operate the Systems and shall provide, through or with the use of the 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 C.

### **8. 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 to international telecommunication services, unless IDA is satisfied that for any of the reasons set out in Condition 42 it would be unreasonable for the Licensee to do so.

### **9. Public Emergency Call Services**

9.1 The Licensee shall ensure that:

- (a) any person through customer premises equipment; 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.

### **10. 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.

**11. 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 for the provision of national security and emergency services.

**PART III: TECHNICAL OBLIGATIONS**

**12. Use of Telecommunication Equipment in the Systems**

12.1 Prior to the operation of the Systems, the Licensee shall in accordance with Section 9 of the Act, submit for IDA's approval all telecommunication infrastructure, technology and any telecommunication equipment which is part of the Systems or which is to be connected to the Systems.

12.2 The Licensee shall seek IDA's prior approval from time to time for any other telecommunication equipment to be used in the operation of the Systems for which the approval has not been granted under Section 9 of the Act, whether such other equipment is in addition to or intended to replace the existing equipment or part thereof.

**13. Operation of Radio-communication Stations**

13.1 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 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 IDA.

13.2 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 shall be submitted in writing for IDA's prior approval.

13.3 The height of the antenna of any radio-communication station comprised in the Systems shall not exceed 50 metres above mean sea level (AMSL). Where necessary however, IDA may grant conditional approval for the Licensee to exceed the prescribed height level provided that the Licensee shall take all necessary steps, at its own cost, to ensure that its network will not cause interference to or receive interference from other authorised networks.

**14. Use of Radio Frequencies**

- 14.1 The Licensee shall, in its application to IDA, 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 and the provision of the Services by the Licensee.
- 14.2 The Licensee shall take all necessary steps to ensure that the use of its 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 are adequately protected from interference that may be caused by networks operating in the same band or in other bands.

**15. Assignment of Numbers**

- 15.1 The Licensee shall comply with IDA's National Numbering Plan and IDA's Framework and Guidelines on the usage, allocation and assignment of numbers. The Licensee shall, in its submission to IDA, 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 and provision of Services. The Licensee shall take all necessary steps to ensure that the numbers allocated are efficiently utilised.
- 15.2 Any telephone number assigned to the Licensee is the property of IDA and the Licensee shall have no proprietary right to the telephone number(s) assigned.
- 15.3 IDA reserves the right to alter and/or reallocate any telephone 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 telephone number(s).

**PART IV: ACCESS AND INTERCONNECTION OBLIGATIONS**

**16. Requirement to Provide Access**

- 16.1 The Licensee shall provide to any person specified in Schedule C means of access to the Systems.
- 16.2 The Licensee may, with the prior approval of IDA, impose an access charge upon any person specified in Schedule C.
- 16.3 The Licensee shall comply with IDA's interconnection & access framework, arrangements and requirements, including all relevant Codes of Practice, directions and notifications which IDA may issue from time to time.

**17. Connection to Other Systems**

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

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

17.2 Notwithstanding Condition 17.1, the Licensee shall cease to connect or refuse to connect to the System any equipment or system that:

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

17.3 The terms and conditions for the connection of equipment or systems to the 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 IDA whose decision shall be final.

**18. Arrangements for Connection to Systems**

18.1 The Licensee shall not impose technical or other conditions or employ any arrangements for the connection of equipment or systems to the Systems other than those set by IDA. In particular, the Licensee shall not, except where IDA 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.

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

18.3 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.

## **19. Changes to Systems**

- 19.1 The Licensee shall give notice in writing to IDA and shall notify all parties affected of any changes it intends to implement in the specification or performance of the Systems which would require changes to any equipment or systems connected to the 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 IDA.
- 19.2 Where IDA considers that a change in the Systems referred to in Condition 19.1 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, and notifies the Licensee thereof, the Licensee shall obtain the prior approval of IDA before implementing such a change.

## **20. Infrastructure Sharing and Deployment**

- 20.1 The Licensee shall comply with IDA’s framework for facilities sharing and deployment, including all relevant Codes of Practice, directions and notifications which IDA may issue from time to time.
- 20.2 Where IDA considers it necessary for the Licensee to share infrastructure with other telecommunication licensees in designated areas in the national and/or public interest or otherwise, IDA shall inform the licensees accordingly so that licensees can make the necessary arrangements before submitting their infrastructure sharing plans to IDA for approval. The Licensee shall share infrastructure whenever and wherever mandated by IDA in accordance with the framework for facilities sharing and deployment, including Codes of Practice.

## **PART V: SERVICE OBLIGATIONS**

### **21. Price Control/Tariffing Arrangements/Quality of Service Standards**

21.1 IDA reserves the right to establish price control arrangements and Quality of Service Standards for the Services provided by the Licensee with which the Licensee shall comply.

21.2 IDA reserves the right to require the Licensee to maintain separate financial data and accounts for the Services and shall submit on request these data and accounts to IDA for inspection.

21.3 IDA 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 IDA before commercial launch or announcement of such services.

### **22. Publication of Charges, Terms and Conditions and Other Information** (\* Condition 22.1 was amended w.e.f 18 November 2011)

22.1 The Licensee shall publish information about the Services it provides, covering inter alia, descriptions and pricing of the 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 IDA may require the Licensee to publish in relation to the Services.

### **23. Confidentiality of Subscriber Information**

23.1 The Licensee shall respect and ensure the confidentiality of subscriber information, especially for ex-directory numbers except under the following circumstances:

(a) where sharing of information with other licensee is necessary to detect, prevent or investigate into fraud;

(b) where disclosure is deemed necessary by IDA or the relevant law enforcement or security agencies to carry out their functions or duties.

## **PART VI: OTHER OBLIGATIONS**

**24. Codes of Practice**

24.1 The Licensee shall comply with the Codes of Practice issued by IDA as well as any additional or supplemental guidelines, which IDA may issue from time to time to the Licensee.

**25. Number Portability**

25.1 The Licensee shall implement number portability from commencement of service subject to IDA's number portability requirements and charging principles.

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

**26. Accounting Separation**

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

**27. Restriction on Undue Preference and Undue Discrimination**

27.1 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 provided or the terms and conditions under which the 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 IDA 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.

**28. Restriction Against Anti-Competitive Arrangements**

28.1 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 provision of Services by the Licensee or any other telecommunication system and/or services licensed by IDA.

**29. Restriction on Exclusive Arrangement for International Services**

29.1 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 IDA to provide those services.

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

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

### **30. Contracts with Third Parties to Operate or Provide Licensed Systems or Services**

30.1 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 IDA’s approval for the joint venture, association, contract or arrangement in question.

30.2 IDA 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.

30.3 If the Licensee fails to effect the necessary changes referred to in Condition 30.2, IDA may direct the Licensee to terminate any such joint venture, association, contract or arrangement.

30.4 Nothing in Condition 30.1 shall be construed as requiring the Licensee to obtain the approval of IDA 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 IDA 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.

### **31. Management Arrangements**

31.1 The Licensee shall seek IDA'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 IDA with details of any such change and any further information requested by IDA.



**32. Direction by IDA**

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

32.2 IDA may, by notice in writing to the Licensee amend, vary or revoke wholly or in part any directions given by it pursuant to Condition 32.1.

32.3 Unless otherwise expressly specified, the Licensee shall safeguard the secrecy of all directions given by IDA. 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 IDA. 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.

**33. Dispute Resolution**

33.1 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 IDA whose decision shall be binding on all parties concerned.

33.2 IDA reserves the right to levy a fee for work undertaken in this respect.

**34. Provision of Information to IDA**

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

34.2 For the purposes of ensuring the Licensee's compliance with the conditions of the Licence, IDA 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 IDA's request, submit the audited accounts and reports prepared under this Condition 34.2 to IDA for inspection and verification.

34.3 The Licensee shall keep in strict confidence any document and information furnished to or so required by IDA pursuant to Condition 34.1, as well as the fact that IDA has requested such document or information.

34.4 IDA may use and disclose any such document or information provided to IDA pursuant to Condition 34.1 as IDA deems fit.

34.5 Where IDA proposes to disclose any document or information obtained pursuant to Condition 34.1 and IDA 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, IDA will give the Licensee a reasonable opportunity to make representations on the proposed disclosure before IDA makes a final decision whether to disclose the information.

**35. National Emergency and Security**

35.1 The Licensee shall, where directed by IDA, 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.

35.2 The Licensee shall, unless expressly notified, keep in strict confidence any information or document pertaining to Condition 35.1 as well as the fact that IDA has requested the Licensee to participate in such emergency activities and preparations.

35.3 IDA may, from time to time, require the Licensee to submit to IDA 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 IDA, at least one month before such change is intended to be implemented.

**36. International Obligations**

36.1 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.

36.2 IDA shall notify the Licensee from time to time of any such Convention, Agreement, Arrangement or Treaty to which Condition 36.1 applies for its compliance.

**PART VII: SUSPENSION, VARIATION AND TERMINATION**

**37. Penalty Framework for Breach of Licence Conditions**

37.1 Where the Licensee breaches any licence condition, IDA may impose a financial penalty on the Licensee in accordance with Section 8 of the Act. IDA may also forfeit any monies payable under the performance bond as stated in Condition 6.

**38. Variation of Terms of Licence**

38.1 Pursuant to Section 7(1) of the Act, IDA may vary or amend any of the terms of this Licence by giving the Licensee at least one month's notice in writing.

**39. Suspension/Cancellation**

39.1 IDA may, in any of the events specified in Section 8 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 as IDA thinks fit.

**40. Termination of Licence**

40.1 In the event that the Licensee desires to terminate this Licence or cease its operation of the Systems or the provision of any of the Services, the Licensee shall seek IDA's approval in writing at least six months in advance.

40.2 No termination shall take place effect until IDA's approval has been obtained under Condition 40.1.

**41. Rights upon Termination, Suspension or Cancellation**

41.1 Any termination, suspension or cancellation of the Licence shall be without prejudice to the rights and remedies which may accrue to the Licensee or IDA 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.

**42. Exceptions and Limitations on Obligations**

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

(a) malfunction or failure of any equipment where IDA 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 IDA 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 resolve 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.

**43. Compliance with the Law**

43.1 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.

43.2 Nothing in this Licence shall be taken as discharging the Licensee from its obligations to obtain any other licences, permits or approvals that may be required under any written law in force in Singapore.

**44. Governing Law**

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

**45. Service of Notices**

45.1 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 with the Accounting and Corporate Regulatory Authority.

**46. Severability**

46.1 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 30 October 2009

A handwritten signature in black ink, appearing to read 'S. K. Jeyaraj', is centered on the page. The signature is fluid and cursive.

Director-General (Telecoms & Post)

Info-communications Development Authority of Singapore

## **SCHEDULE 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;
- (h) Any reference to any Guidelines, Codes or Framework or other rules or documents promulgated by IDA shall be read as reference to such as may be amended from time to time; and
- (i) In the event of any conflict or inconsistency between any Condition of this Licence and the terms of Schedule C, the terms of Schedule C shall prevail.

**SCHEDULE A**

**DESCRIPTION OF THE TELECOMMUNICATION SYSTEMS TO BE  
ESTABLISHED BY THE LICENSEE**

[Licensee specific details have been removed]

**SCHEDULE B**

**DESCRIPTION OF THE TELECOMMUNICATION SERVICES TO BE  
PROVIDED BY THE LICENSEE**

[Licensee specific details have been removed]



**SCHEDULE C**  
**SPECIFIC TERMS AND CONDITIONS**

**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 IDA 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 4.1 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 EOI Services on prices, terms and conditions that are negotiated by the parties;
- (m) “**Contract**” means the contract between IDA and the Licensee 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) “**EOI Services**” means all services that the Licensee is licensed to offer pursuant to the terms of the Licence including without limitation Basic Services, Ancillary Services, Other Wholesale Services, Input Mandated Services, the resale of NetCo Services and any other services which IDA may determine to be EOI Services;
- (q) “**ICO**” means the standard interconnection offer submitted by the Licensee and approved by IDA;
- (r) “**Input Mandated Services**” means input telecommunication services derived from the Licensee’s operations and/or management of the Active Network which are used to provide an Other Wholesale Service, referred to in paragraph 4.3 of this Schedule;
- (s) “**Layer 1.5 Services**” means connectivity services performed at the “physical” layer of both the OSI and TCP/IP models, and which entail the channelisation, allocation, filtering and/or multiplexing of electromagnetic wavelengths;
- (t) “**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;
- (u) “**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;
- (v) “**Mandated Services**” means the Basic Mandated Services, Ancillary Mandated Services, Input Mandated Services and such other services that IDA may specify, and any bundled collection of the preceding;
- (w) “**NetCo Contract**” means the contract between IDA and the NGNBN NetCo dated 20 October 2008;

- (x) **“NetCo Licence”** means the FBO licence granted by IDA to the NGNBN NetCo in relation to the provision of telecommunication services;
- (y) **“NetCo Service”** means any service that the NGNBN NetCo offers to provide under the terms of the NetCo Licence;
- (z) **“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;
- (aa) **“NGNBN NetCo”** means OpenNet Pte. Ltd., including its successors and assigns;
- (bb) **“Non-Building Address Point” or “NBAP”** means a location in mainland Singapore or connected islands other than a Physical Address;
- (cc) **“Non-Mandated Service”** means any EOI Service that is not a Mandated Service;
- (dd) **“Non-Residential Premise”** means any premise other than a Residential Premise;
- (ee) **“OpCo Interconnection Code”** means the Code of Practice for Next Generation National Broadband Network OpCo Interconnection;
- (ff) **“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;
- (gg) **“Operational Separation Requirements”** means the requirements set out in Appendix 1 to this Schedule C;
- (hh) **“Other Wholesale Services”** means the wholesale services referred to in paragraph 5.2 of this Schedule;
- (ii) **“Passive Network”** means the passive infrastructure of the NGNBN, implemented/being implemented pursuant to the terms and conditions of the NetCo Contract;
- (jj) **“Patching Services”** means patching, splitting and splicing services as specified in the Active Network Specifications;
- (kk) **“Physical Addresses”** mean Residential Premises and Non-Residential Premises located in mainland Singapore or connected islands;
- (ll) **“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;

- (mm) **“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;
- (nn) **“Retail Service Provider” or “RSP”** means any person providing retail services to End-Users using the NGNBN and/or other networks in Singapore;
- (oo) **“RFP”** means the Request for Proposal for Singapore's Next Generation National Broadband Network - Operating Company (OpCo) issued by IDA on 7 April 2008, including all subsequent addenda and amendments thereto;
- (pp) **“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 EOI Services;
- (qq) **“TCP/IP”** means a set of communications protocols used for transmitting data between computers and as the basis for standard protocols on the Internet;
- (rr) **“Telecom Competition Code”** means the Code of Practice for Competition in the Provision of Telecommunication Services;
- (ss) **“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
- (tt) **“Wireline”** means the physical media used to transmit digital or analogue signals, e.g. optical fibre.

## **2. Operational Separation Requirements**

- 2.1 The Licensee shall comply with the Operational Separation Requirements.

## **3. Restrictions on Services Offered by the Licensee**

- 3.1 The Licensee shall not offer for sale, sell or otherwise provide retail telecommunication services to any End-User without IDA’s prior written approval.
- 3.2 The Licensee shall not offer for sale, sell or otherwise provide any telecommunication service other than an EOI Service without IDA’s prior written approval.
- 3.3 The Licensee may not offer for sale, sell or otherwise provide any Layer 1.5 Services unless and until it:
  - (a) prepares and submits to IDA a plan setting out its proposed use and management of the spectrum within the Wireline; and

- (b) obtains IDA's written approval of such plan.
- 3.4 The Licensee shall not offer for sale or sell any broadcasting services.
- 3.5 The Licensee may not offer for sale, sell or otherwise provide any Other Wholesale Service unless:
  - (a) the Other Wholesale Service is offered on an unbundled basis;
  - (b) the input telecommunication services used to build the Other Wholesale Service are offered as Input Mandated Services, where possible; and
  - (c) the Licensee obtains IDA's written approval for the offer of such Other Wholesale Service in accordance with paragraphs 5.3 and 5.4.
- 3.6 Without prejudice to paragraphs 3.1, 3.2, 3.3, 3.4, 3.5 and 5.1 of this Schedule, if the Licensee wishes to carry on any business or provide any services other than that licensed under the terms of this Licence, the Licensee shall notify IDA and, to the satisfaction of IDA:
  - (a) maintain a separate set of accounts in respect of each other business or service;
  - (b) not offset any amounts stated in one set of accounts against the amounts stated in another set of accounts; and
  - (c) offer Input Mandated Services which are used to provide such services to Qualifying Persons.
- 3.7 The Licensee may not provide Ancillary Mandated Services to any person unless they are required for the provision of a Basic Mandated Service.

#### **4. Mandated Services**

- 4.1 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 IDA may determine to be Basic Mandated Services.
- 4.2 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; and
  - (e) Interoperability Testing Service.

- (f) any other services that IDA may determine to be Ancillary Mandated Services.
- 4.3 The Licensee shall offer Input Mandated Services to Qualifying Persons including without limitation:
  - (a) [*intentionally left blank*]; and
  - (b) any other services that IDA may determine to be Input Mandated Services.
- 4.4 The Licensee shall offer access to Service Ports at the locations specified in the ICO.
- 4.5 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 IDA may require.

## **5. Non-Mandated Services**

- 5.1 Subject to IDA's approval, the Licensee may offer Non-Mandated Services on the terms of a Commercial Offering provided that the Licensee notifies IDA of the terms of its Commercial Offering and any offer or provisioning of any such service complies with the Operational Separation Requirements.
- 5.2 Subject to IDA's approval, the Licensee may offer the following Other Wholesale Services:
  - (a) [*intentionally left blank*]; and
  - (b) any other services that IDA may determine to be Other Wholesale Services.
- 5.3 If the Licensee wishes to offer any Other Wholesale Service, it shall submit a request in writing to IDA, providing full details of the proposed service. IDA may seek public comments regarding the offer of the Other Wholesale Service.
- 5.4 If IDA requires the Licensee to offer an Other Wholesale Service in the ICO, IDA shall direct the Licensee to comply with the New Service Inclusion Process in Section 8 of the OpCo Interconnection Code subject to such other timeframes as may be specified by IDA.

## **6. The ICO**

- 6.1 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 IDA 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 IDA in accordance with the terms set out in the OpCo Interconnection Code.
- 6.2 The Licensee shall not impose any unreasonable minimum contractual periods or any unreasonable early termination penalty for any Mandated Service offered in the ICO.
- 6.3 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 IDA, the Licensee shall not require any additional terms and conditions which the Licensee has not expressly accounted for in the ICO.

## **7. Confidentiality and Security of Information**

- 7.1 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.
- 7.2 All of the Licensee's databases pertaining to End-User and/or RSP information shall be kept by the Licensee in Singapore.
- 7.3 The Licensee shall ensure strict control measures for access to any of the Licensee's databases pertaining to End-User and/or RSP information.
- 7.4 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.
- 7.5 IDA reserves the right to require the Licensee to implement any other security requirements as necessary.
- 7.6 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 part for data (if applicable), the party accessing the data, the date/time of the transaction and the information that were accessed.
- 7.7 IDA reserves the right to require the Licensee to log and submit any other details in the access logs as necessary.

- 7.8 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.
- 7.9 All access logs to the Licensee's databases pertaining to End-User and/or RSP information shall be submitted to IDA on request.

## **8. Separate Accounts**

- 8.1 The Licensee shall maintain separate sets of accounts between Mandated Services and other EOI Services. IDA reserves the right to require the Licensee to maintain separate sets of accounts in respect of any or all of the services provided by the Licensee.



## APPENDIX 1

### OPERATIONAL SEPARATION REQUIREMENTS

#### 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 EOI 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 EOI Service, 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 EOI service (“EOI Service”) 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 EOI Services from the Licensee that is not an Affiliated Operator;
- (i) “Operational Separation 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 C 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 EOI Services that it provides; and
- (b) all Migration Processes for such EOI 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 EOI 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 EOI 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 shall be incorporated as a separate legal entity.
- 4.2 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.
- 4.3 All transactions between the Licensee and Affiliated Operators in relation to provision of the EOI 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 Directors, Employees, Agents and Contractors**

### **5.1 The Licensee's Board of Directors:**

- (a) shall, both in relation to the entire Board of Directors and in relation to Directors having the ability to exercise voting power, be composed of a majority who do not have responsibilities for, or within, any Affiliated Operator;
- (b) may, subject to compliance with (a), comprise of Directors who have responsibilities for, or within, any Affiliated Operator save that –
  - (i) each shareholder of the Licensee may appoint no more than one (1) such Director;
  - (ii) no person who is responsible for directing, managing or overseeing any business unit within an Affiliated Operator which purchases EOI services from the Licensee or otherwise has any direct dealings with the Licensee may serve as a Director;
  - (iii) such Directors shall not be granted any greater voting power (e.g. second or casting vote) than the Directors who comprise the majority under (a); and
- (c) shall direct the Licensee in a way designed to secure compliance with the requirements of this Appendix.

### **5.2 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 Monitoring for Compliance**

- 7.1 IMDA may establish a board to monitor and report on the Licensee's compliance with the requirements of this Appendix, paying particular attention to the Licensee's provision of EOI Services and Migration Processes on an Equivalence of Inputs basis (the "Monitoring Board"). The Monitoring Board may be comprised of such persons as IMDA may appoint at its absolute discretion. IMDA may itself perform the functions of the Monitoring Board or any part thereof, in which case IMDA will notify the Licensee of the same and all relevant references to the Monitoring Board in this Appendix shall be taken as references to IMDA.

- 7.2 The Licensee shall not maintain any relationships, implement any arrangements (formal or informal) or otherwise do anything that has the effect in any way of diluting, fettering or compromising:

- (a) the independent functioning of the Monitoring Board having regard to the purpose for which it is established; or
- (b) the Monitoring Board's ability to effectively discharge its duties.

- 7.3 The Licensee shall render its fullest co-operation to the Board to enable the Board to effectively perform its functions, including but not limited to:

- (a) granting the Monitoring Board access to the Licensee's Board of Directors, Management, employees, agents and contractors for the purpose of interviews and information gathering;

- (b) granting the Monitoring Board access to any information in whatever form that is within Licensee's power, possession or control; and
- (c) providing such other assistance as the Monitoring Board may reasonably require.

## **7.4 Reporting to IMDA**

### **7.4.1 The Licensee shall submit to IMDA:**

- (a) measurements of the Licensee's performance against the Operational Separation 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;
- (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;
- (c) the governance manual prepared by the Licensee pursuant to paragraph 7.5.1, to be submitted upon request by IMDA;
- (d) a copy of the agreements for all transactions entered into between the Licensee and Affiliated Operators in relation to provision of the EOI Services as soon as practicable; and
- (e) such further information and details on any transaction entered into between the Licensee and Affiliated Operators in relation to provision of the EOI Services as may be requested by IMDA.

## **7.5 Governance Manual**

7.5.1 The Licensee shall prepare and maintain a comprehensive governance manual for the purpose of putting in place proper internal systems, safeguards and policies to ensure the Licensee's compliance with the requirements of this Appendix. The governance manual shall cover all aspects of the Licensee's operations and activities to which the requirements in this Appendix relate. Without limitation, the governance manual shall include details of the training



programmes and disciplinary regime implemented by the Licensee pursuant to paragraph 5.2. The Licensee shall regularly update the governance manual to rectify and improve on its governance regime as may be necessary or appropriate.

7.5.2 The Licensee shall strictly observe and implement the matters set out in the governance manual and ensure that the governance manual is made available to all employees, contractor and agents for their due compliance.

7.5.3 The Licensee shall submit a copy of the governance manual to IMDA by the effective date of this Appendix<sup>1</sup>, and as and when the governance manual is updated. The Licensee shall incorporate such requirements as IMDA may impose in its governance manual and comply with the same.

## **8 Operational Separation 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 Affiliated Operators as compared to the provision of services to Non-Affiliated Operators (the "Operational Separation Performance Indicators").

8.2 The Operational Separation Performance Indicators, in relation to any and all its EOI Services and Migration Processes, shall at the minimum include:

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

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<sup>1</sup> In the case of a Licensee which has an Affiliated Operator as at the Closing Date, by no later than 6 months from the Closing Date and in the case of a Licensee which has no Affiliated Operator as at the Closing Date but which subsequently comes to have an Affiliated Operator, by no later than 6 months from the date of such event.

- (e) the percentage of faults rectified on time for an EOI Service or Migration Process;

for Affiliated Operators, and separately for Non-Affiliated Operators.

- 8.3 IMDA reserves the right to seek public comments and/or to direct the Licensee to make changes to the Operational Separation Performance Indicators, and/or to add new performance indicators to the Operational Separation Performance Indicators, at any time.
- 8.4 The Operational Separation Performance Indicators, as may be amended from time to time, shall be deemed to be incorporated into this Appendix for the purposes of compliance by the Licensee.
- 8.5 From the commencement of operations, the Licensee shall publish on the Licensee's website details of its performance against the Operational Separation Performance Indicators on a regular basis or at such frequency as may be determined by IMDA.

## **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 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 (Cap. 323) 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 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

**SCHEDULE D**

**PERFORMANCE BOND**

[Licensee specific details have been removed]