

**WBA SPECTRUM RIGHT  
GRANTED BY THE INFO-COMMUNICATIONS  
DEVELOPMENT AUTHORITY OF SINGAPORE  
UNDER REGULATION 6 OF THE TELECOMMUNICATIONS (RADIO-  
COMMUNICATION) REGULATIONS  
TO  
STARHUB LTD  
ON 1 JULY 2005**

## **PART I: THE WBA SPECTRUM RIGHT**

### **1. Grant of WBA Spectrum Right**

- 1.1 The Info-communications Development Authority of Singapore (hereinafter referred to as "IDA"), in exercise of the powers conferred on it under Regulation 6 of the Telecommunications (Radio-communication) Regulations made pursuant to the Telecommunications Act (Cap. 323) (hereinafter referred to as "the Act") hereby grants to StarHub Ltd (hereinafter referred to as "the Grantee"), subject to the conditions herein, the right to use the radio frequency spectrum which has been allocated to the Grantee by IDA and which is more particularly described in Schedule A (hereinafter referred to as "the Assigned Radio Frequency Spectrum") for the purposes of operating Wireless Broadband Access telecommunications systems (hereinafter referred to as "the Systems") for the provision of Wireless Broadband Access telecommunication services to end-users as specified in the Facilities-Based Operator's Licence dated 5 May 1998 and modified on 8 September 2000 and 2 July 2002, granted by IDA to the Grantee pursuant to Section 5 of the Act (hereinafter referred to as the "WBA Spectrum Right").
- 1.2 The Grantee acknowledges that this WBA Spectrum Right was granted to the Grantee on the basis of allocation specified in the procedures and conditions of participation issued by the IDA pursuant to Regulation 7 of the Telecommunications (Radio-communication) Regulations, and as amended or varied by IDA from time to time (hereinafter referred to as the "Auction Rules"). The Grantee hereby represents and warrants that it has complied with the Auction Rules and has not been involved in any act or omission of any act, constituting a breach of the Auction Rules, and has met and satisfied all requirements as IDA may determine pursuant to Regulation 8 of the Telecommunications (Radio-communication) Regulations.
- 1.3 The Grantee acknowledges and agrees that in the event IDA determines that the Grantee has breached any of the Auction Rules, or used the Assigned Radio Frequency Spectrum for any purpose other than to operate the Systems for the provision of Wireless Broadband Access telecommunication services to end-users (as specified in the Grantee's Facilities-Based Operator's Licence referred to in Condition 1.1), IDA shall be entitled to cancel or suspend this WBA Spectrum Right or any part thereof in accordance with Condition 16 of this WBA Spectrum Right.

## **2. Duration of WBA Spectrum Right**

2.1 This WBA Spectrum Right shall come into force on 1 July 2005 (“date of grant”), and shall be valid until 30 June 2015 unless suspended or cancelled by IDA in accordance with Condition 16 or terminated by the Grantee in accordance with Condition 15.

2.2 This WBA Spectrum Right may be extended or further renewed for such period as IDA thinks fit and subject to such terms and conditions as may be specified by IDA in its absolute discretion.

## **3. Geographic Area**

3.1 The geographic area in which the Grantee is permitted to use the Assigned Radio Frequency Spectrum for the purposes of operating the Systems for the provision of Wireless Broadband Access telecommunication services to end-users is for the whole island of Singapore, the offshore islands and the territorial waters up to 15km from the coastline of the island of Singapore.

## **4. Payment for Grant of WBA Spectrum Right**

4.1 The Grantee shall pay to IDA the amounts specified in Schedule B of this WBA Spectrum Right by such mode or modes of payment as IDA may determine, without set-off or counter-claim, on the date specified therein, failing which IDA shall be entitled to cancel or suspend this WBA Spectrum Right or part thereof in accordance with Condition 16.

4.2 In the event of a default by the Grantee in the payment of any fee when due under this WBA Spectrum Right, the Grantee shall pay to IDA interest on the amount from time to time outstanding in respect of the overdue sum from the period beginning on its due date and ending on 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.

## **PART II: WBA SPECTRUM RIGHT REQUIREMENTS**

### **5. Additional licences required**

5.1 The Grantee shall not use the Assigned Radio Frequency Spectrum for the purposes of operating the Systems for the provision of Wireless Broadband Access telecommunication services to end-users unless the Grantee holds:-

- (a) a valid and current licence issued pursuant to Section 5 of the Act for the establishment, installation, operation and maintenance of the Systems and the provision of Wireless Broadband Access telecommunication services thereunder; and
- (b) a valid and current licence issued pursuant to Regulation 23 and/or Regulation 28 of the Telecommunications (Radio-communication) Regulations, as the case may be, for the establishment, installation and operation of radio-communication stations and/or networks comprising the Systems.

### **PART III: OBLIGATIONS OF THE GRANTEE**

#### **6. Statutory compliance**

- 6.1 The Grantee shall observe and comply with the Act, the Info-communications Development Authority of Singapore Act (Cap. 137A)(the “IDA Act”), the Telecommunications (Radio-communication) Regulations, the International Telecommunications Convention and any other relevant treaty or convention to which Singapore is a party.
- 6.2 Nothing in this WBA Spectrum Right shall be taken as discharging the Grantee from its obligation to obtain any other rights, licences, permits or approvals that may be required under any written law in force in Singapore.

#### **7. International Obligations**

- 7.1 The Grantee shall exercise its rights and powers and perform its duties and obligations under this WBA Spectrum Right in a manner, which is consistent with the Government of Singapore's obligations under any relevant convention, agreement, arrangement or treaty to which Singapore is a party.
- 7.2 IDA shall notify the Grantee from time to time of any such convention, agreement, arrangement or treaty to which Condition 7.1 applies for its compliance.

#### **8. Codes of Practice and Directions issued by IDA**

- 8.1 The Grantee shall comply with the relevant Codes of Practice issued by IDA as well as any additional or supplemental guidelines, which IDA may issue from time to time to the Grantee.
- 8.2 The Grantee 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, the IDA Act, the Telecommunications (Radio-communication) Regulations or this WBA Spectrum Right.

- 8.3 IDA may, by notice in writing to the Grantee, amend, vary or revoke wholly or in part any directions given by it pursuant to Condition 8.2.
- 8.4 Unless otherwise expressly specified, the Grantee shall safeguard the secrecy of all directions given by IDA. The Grantee shall neither during the currency nor after the expiry, termination, suspension or cancellation of this WBA Spectrum Right disclose, or aid 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 Grantee 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.

## **9. Provision of Information to IDA**

- 9.1 The Grantee shall provide IDA with any documents or information within its knowledge, custody or control that IDA may by notice or direction require for the exercise of its powers, functions and duties under the Act, the IDA Act, the Telecommunications (Radio-communication) Regulations, or in this WBA Spectrum Right.
- 9.2 In order to monitor the Grantee's compliance with the conditions of this WBA Spectrum Right, IDA may also direct the Grantee to arrange at its own cost for a separate and independent audit of its activities. The Grantee shall, at IDA's request, submit the audited accounts and reports prepared under this Condition 9 to IDA for its inspection.
- 9.3 The Grantee shall, when expressly notified, keep in strict confidence any documents or information so required by IDA pursuant to Condition 9.1 as well as the fact that IDA has requested for such documents or information.
- 9.4 Subject to Condition 9.5, IDA may use and disclose the documents and information required by IDA pursuant to Condition 9.1 to such persons as IDA deems fit.
- 9.5 Where IDA proposes to disclose the documents and information obtained pursuant to Condition 9.1 and IDA considers that the disclosure would result in the release of information concerning the business or commercial or

financial affairs of the Grantee, which disclosure would or could reasonably be expected to adversely affect the Grantee's lawful business or commercial or financial affairs, IDA will give the Grantee a reasonable opportunity to make representations on the proposed disclosure before IDA makes a final decision whether to disclose the information.

## **10. Ownership, Shareholding and Management Arrangements**

10.1 The Grantee shall obtain IDA's approval for the appointment of its Chairman, Board of Directors and Chief Executive Officer and shall provide IDA with details of its ownership, shareholding and management arrangements.

10.2 Any change in the ownership, shareholding and management arrangements of the Grantee as provided pursuant to Condition 10.1 above (including but not limited to changes in the Chairman, Board of Directors or Chief Executive Officer) shall be submitted to IDA for approval at least one month before such change is intended to be implemented.

## **11. Use of Radio Frequencies**

11.1 The Grantee shall take all necessary steps to ensure that the use of the Assigned Radio Frequency Spectrum for the purposes of operating the Systems for the provision of Wireless Broadband Access telecommunication services to end-users is safe and does not cause interference to the other existing radio-communication stations, networks and systems operating in the same area or radio frequency band or in other areas or radio frequency bands. The Grantee shall also take all appropriate measures to ensure that its Systems and the radio-communication stations and equipment comprised therein are adequately protected from interference that may be caused by radio-communication stations and networks operating in the same area or radio frequency band or in other areas or radio frequency bands.

11.2 The Grantee shall co-operate with the IDA for the purposes of assisting IDA in co-ordinating and managing the use of radio frequencies in relation to neighbouring countries, including but not limited to the provision of information to IDA, and the reduction of emission levels of any radio-communication stations comprised in the Systems.

- 11.3 Subject to the Act, the IDA Act, the Telecommunications (Radio-communication) Regulations and this Condition 11, the use of any part of the Assigned Radio Frequency Spectrum for the purposes of managing interference (including the provisioning for a guard band(s)) shall be at the discretion of the Grantee.
- 11.4 Subject to Condition 11.5, the Grantee must provide publicly available Wireless Broadband Access telecommunication services to end-users, using the Assigned Radio Frequency Spectrum, within the specified period of 18 months from the date of grant.
- 11.5 For the period before 1 January 2006, the Grantee must only use the Assigned Radio Frequency Spectrum to provide Wireless Broadband Access telecommunication services to end-users (as specified in the Grantee's Facilities-Based Operator's Licence referred to in Condition 1.1) with limited mobility speeds of up to 10km/h. From 1 January 2006, the restriction specified in this Condition 11.5 will cease to be effective.

## **12. Operation of the Systems, Radio-communication Stations and Equipment**

- 12.1 The Grantee shall ensure that the Systems and the radio-communication stations and equipment comprised therein that are operated within the Assigned Radio Frequency Spectrum shall at all times comply with all applicable emission standards and technical specifications or requirements specified by IDA, from time to time, in relation thereto.
- 12.2 The Grantee shall ensure that the Systems and the radio-communication stations and equipment comprised therein that are operated within the Assigned Radio Frequency Spectrum are not used for unlawful purposes or misused in any way.
- 12.3 The height of the transmitter antenna of a radio-communication station comprised in the Systems shall not exceed 50 metres above mean sea level (AMSL). Where justified, IDA may grant conditional approval for the Grantee to exceed the prescribed height provided that the Grantee shall take all necessary steps at its own cost, to ensure that the Systems will not cause

interference to or receive interference from other telecommunication systems, operating within or outside of Singapore.

## **PART IV: SPECTRUM TRADING AND SHARING**

### **13. Spectrum Trading**

13.1 The Grantee shall not assign, transfer, trade, deal with or otherwise dispose of the whole or any part of the rights, privileges, duties and/or obligations under this WBA Spectrum Right to any person or persons for a period of 12 months from the date of grant. Thereafter, the Grantee may only do so:

- (a) with the prior written approval of IDA; and
- (b) in accordance with the Act, the IDA Act, the Telecommunications (Radio-communication) Regulations, the Code of Practice for Competition in the Provision of Telecommunication Services 2005, and the rules and procedures relating to spectrum trading published by IDA from time to time.

13.2 Any such written approval may be given subject to such conditions that IDA may in its discretion impose.

13.3 No assignment, transfer, trading, dealing or disposal with the whole or any part of the rights, privileges, duties and/or obligations under this WBA Spectrum Right shall take effect until the conditions in Condition 13.1 are satisfied.

13.4 The Grantee shall, and shall procure that other party to the assignment, transfer, trade, deal or disposal, give to IDA such information about the assignment, transfer, trade, deal or disposal under Condition 13.1 as IDA requires for the purpose of giving its approval (if any) under Condition 13.1(a).

### **14. Spectrum Sharing**

14.1 The Grantee shall not authorise any person or persons (the "Authorised Person") to operate a radio-communication station and/or network within the Assigned Radio Frequency Spectrum except in accordance with the Act, the IDA Act, the Telecommunications (Radio-communication) Regulations, and

the rules and procedures relating to spectrum sharing published by IDA from time to time.

- 14.2 The Grantee will at all times remain liable for the acts, omissions, defaults and neglects of the Authorised Person as if they were the acts, omissions, defaults and neglects of the Grantee.

## **PART V: TERMINATION, SUSPENSION, CANCELLATION, VARIATION AND RESUMPTION**

### **15. Termination of WBA Spectrum Right**

15.1 In the event that the Grantee desires to terminate this WBA Spectrum Right, the Grantee must obtain IDA's approval in writing at least 6 months in advance.

15.2 No termination of this WBA Spectrum Right shall take effect until IDA's approval in writing is obtained under Condition 15.1.

### **16. Suspension and Cancellation of WBA Spectrum Right**

16.1 IDA may suspend and/or cancel the WBA Spectrum Right in whole or in part in accordance with Regulation 16 of the Telecommunications (Radio-communication) Regulations.

### **17. Rights upon Termination, Suspension or Cancellation**

17.1 Any termination, suspension or cancellation of this WBA Spectrum Right shall be without prejudice to the rights and remedies which may accrue to the Grantee or IDA under this WBA Spectrum Right or any written law as at the date of termination, suspension or cancellation, except that the Grantee shall not have the right to seek compensation or refund of the WBA Spectrum Right fee paid under Condition 4.1 or any other fee paid in advance, whether in whole or in part.

### **18. Variation of WBA Spectrum Right**

18.1 IDA may vary the conditions of this WBA Spectrum Right in accordance with the Telecommunications (Radio-communication) Regulations.

**19. Resumption of WBA Spectrum Right**

19.1 IDA may, in accordance with Regulations 17 and 18 of the Telecommunications (Radio-communication) Regulations, resume this WBA Spectrum Right in whole or in part.

**20. Exceptions and Limitations on Obligations**

20.1 The Grantee shall not be held to have failed to comply with its obligations in this WBA Spectrum Right 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 to prevent such malfunction or failure;
- (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 Grantee's reasonable control and which notwithstanding the exercise by it of reasonable diligence and foresight, the Grantee was unable to prevent or overcome,

Provided always that the Grantee shall use all reasonable endeavours to resolve with all reasonable speed the factor(s) preventing compliance of its obligations and shall resume complying with its obligations as soon as the factor(s) which prevented such compliance thereof is resolved.

## **PART VI: MISCELLANEOUS CONDITIONS**

### **21. Governing Law**

21.1 This WBA Spectrum Right shall be governed by and construed according to the laws of Singapore.

### **22. Service of Notices**

22.1 All notices under this WBA Spectrum Right 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 Grantee's registered address as lodged with the Accounting and Corporate Regulatory Authority of Singapore.

### **23. Severability**

23.1 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 this WBA Spectrum Right shall remain in full force in every respect.

**Dated this 1<sup>ST</sup> day of July 2005**



**Chief Executive Officer  
Info-communications Development Authority of Singapore**

## **SCHEDULE OF INTERPRETATION**

In this WBA Spectrum Right, 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 WBA Spectrum Right are for convenience of reference only and are not part of this WBA Spectrum Right and shall not in any way affect the interpretation thereof;
- (c) Any word or expression used in this WBA Spectrum Right shall have the same meaning as it has in the Act;
- (d) Any reference in this WBA Spectrum Right to the Act shall include any regulations made thereunder;
- (e) Any reference in this WBA Spectrum Right to any regulations made under the Act shall include any regulations made under any predecessor legislation until such regulations are revoked or repealed by subsidiary legislation made under the Act;
- (f) Any reference in this WBA Spectrum Right to a person shall be deemed to include both corporations and natural and legal persons;
- (g) Any reference to monetary amounts in this WBA Spectrum Right shall be deemed to be denominated in Singapore Dollars; and
- (h) Any reference to any Codes, guidelines or other rules or documents promulgated by IDA shall be read as reference to such as may be amended from time to time.

## SCHEDULE A

### ASSIGNMENT OF RADIO FREQUENCY SPECTRUM

1. The Assigned Radio Frequency Spectrum means the radio frequency band(s) consisting of the range of radio frequencies between the upper and lower frequency limits of the radio frequency bands specified in the table below:

BAND(S)	
Lower Frequency Limit	Upper Frequency Limit
2576 MHz	2588 MHz

## SCHEDULE B

### PAYMENT FOR THE GRANT OF WBA SPECTRUM RIGHT

<b>Year</b>	<b>Payment Due Date</b>	<b>Payment</b>
1	2 June 2005	S\$1,084,020
		<b>Annual Charges<sup>i</sup></b>
2	1 July 2006	S\$27,675.00
3	1 July 2007	S\$28,366.88
4	1 July 2008	S\$29,076.05
5	1 July 2009	S\$29,802.95
6	1 July 2010	S\$30,548.02
7	1 July 2011	S\$31,311.72
8	1 July 2012	S\$32,094.52
9	1 July 2013	S\$32,896.88
10	1 July 2014	S\$33,719.30

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<sup>i</sup> The Annual Charges exclude the applicable GST, which shall be payable by the Grantee.