

2.5 GHZ SPECTRUM RIGHT (2017)

**GRANTED BY THE INFO-COMMUNICATIONS
MEDIA DEVELOPMENT AUTHORITY
UNDER REGULATION 6 OF THE TELECOMMUNICATIONS (RADIO-
COMMUNICATION) REGULATIONS
TO
STARHUB MOBILE PTE LTD**

ISSUED ON 1 JULY 2017

PART I: THE 2.5 GHZ SPECTRUM RIGHT (2017)

1. Grant of 2.5 GHz Spectrum Right (2017)

- 1.1 The Info-communications Media Development Authority (hereinafter referred to as the "Authority"), in exercise of the powers conferred on it pursuant to Regulation 6 of the Telecommunications (Radio-communication) Regulations and the Telecommunications Act (Cap. 323) (hereinafter referred to as "the Act") hereby grants to StarHub Mobile Pte 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 the Authority and which is more particularly described in Schedule A (hereinafter referred to as "the Assigned Radio Frequency Spectrum") for the purposes of operating public cellular mobile telecommunication systems (hereinafter referred to as "the Systems") for the provision of fourth-generation telecommunication services (hereinafter referred to as "4G") and/or International Mobile Telecommunications-Advanced telecommunication services (hereinafter referred to as "IMT-Advanced"), and other telecommunication services (if approved by the Authority), as specified in the Facilities-Based Operator's Licence to Provide Facilities-Based Operations dated 5 May 1998 and renewed on 1 April 2017 granted by the Authority to the Grantee pursuant to Section 5 of the Act (hereinafter referred to as the "2.5 GHz Spectrum Right (2017)").
- 1.2 The Grantee acknowledges that this 2.5 GHz Spectrum Right (2017) was granted to the Grantee on the basis of allocation specified in the procedures and conditions of participation issued by the Authority pursuant to Regulation 7 of the Telecommunications (Radio-communication) Regulations, and as amended or varied by the Authority 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 shall fully comply with all requirements as the Authority may determine for the grant of this 2.5 GHz Spectrum Right (2017).
- 1.3 The Grantee acknowledges and agrees that in the event the Authority 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 4G and/or IMT-Advanced, and other telecommunication services (if approved by the Authority and as specified in the Grantee's FBO Licence referred to in Condition 1.1), or breached any of

the terms and conditions of this 2.5 GHz Spectrum Right (2017), the Authority shall be entitled to cancel or suspend this 2.5 GHz Spectrum Right (2017) or any part thereof, and/or impose a financial penalty, in accordance with Condition 16 of this 2.5 GHz Spectrum Right (2017).

2. Duration of 2.5 GHz Spectrum Right (2017)

- 2.1 This 2.5 GHz Spectrum Right (2017) shall come into force on 1 July 2017, and shall be valid until 30 June 2033 unless suspended or cancelled by the Authority in accordance with Condition 16 or terminated in accordance with Condition 15.
- 2.2 This 2.5 GHz Spectrum Right (2017) may be extended or further renewed for such period as the Authority thinks fit and subject to such terms and conditions as may be specified by the Authority 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 is for the whole island of Singapore (including MRT underground stations/lines and road tunnels), the offshore islands and the territorial waters up to 15km from the coastline of the island of Singaporeⁱ.

4. Payment for Grant of 2.5 GHz Spectrum Right (2017)

- 4.1 The Grantee shall pay to the Authority the amount(s) specified in Schedule B of this 2.5 GHz Spectrum Right (2017) by such mode or modes of payment as the Authority may determine, without set-off or counter-claim, on the date(s) specified therein, failing which the Authority shall be entitled to cancel or suspend this 2.5 GHz Spectrum Right (2017) or part thereof in accordance with Condition 16.

ⁱ Except where limitations in service coverage are due to technical requirements imposed by the Authority, such as that to limit interference with neighbouring countries.

PART II: 2.5 GHZ SPECTRUM RIGHT (2017) 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 4G and/or IMT-Advanced, and other telecommunication services (if approved by the Authority), 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 telecommunication systems and the provision of the 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 Media Development Authority Act (the "IMDA 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 2.5 GHz Spectrum Right (2017) 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 2.5 GHz Spectrum Right (2017) in a manner, which is not inconsistent with or derogates from the Government of Singapore's obligations under any relevant convention, agreement, arrangement or treaty to which Singapore is a party.
- 7.2 The Authority may 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 the Authority

- 8.1 The Grantee shall comply with all relevant Codes of Practice issued by the Authority as well as any additional or supplemental guidelines, which the Authority may issue from time to time as may be applicable to the Grantee.
- 8.2 The Grantee shall strictly and without any undue delay comply with any and all directions, which the Authority may from time to time issue in exercise of its powers, functions or duties under the Act, the IMDA Act, the Telecommunications (Radio-communication) Regulations or this 2.5 GHz Spectrum Right (2017).
- 8.3 The Authority may, by notice in writing to the Grantee, amend, vary or revoke wholly or in part any directions issued by it pursuant to Condition 8.2.

8.4 Unless otherwise expressly specified, the Grantee shall safeguard the secrecy of all directions issued by the Authority. The Grantee shall neither during the currency nor after the expiry, termination, suspension or cancellation of this 2.5 GHz Spectrum Right (2017) 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 the Authority. 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 the Authority

9.1 The Grantee shall provide the Authority with any and all documents and/or information within its knowledge, custody or control that the Authority may by notice or direction require for the exercise of its powers, functions and duties under the Act, the IMDA Act, the Telecommunications (Radio-communication) Regulations, or in this 2.5 GHz Spectrum Right (2017).

9.2 In order to monitor the Grantee's compliance with the conditions of this 2.5 GHz Spectrum Right (2017), the Authority may also direct the Grantee to arrange at its own cost for a separate and independent audit of its activities. The Grantee shall, at the Authority's request, submit the audited accounts and reports prepared under this Condition 9 to the Authority for its inspection.

9.3 The Grantee shall, when expressly notified, keep in strict confidence any documents or information so required by the Authority pursuant to Condition 9.1 as well as the fact that the Authority has requested for such documents or information.

9.4 Subject to Condition 9.5, the Authority may use and disclose the documents and information required by the Authority pursuant to Condition 9.1 to such persons as the Authority deems fit.

9.5 Where the Authority proposes to disclose the documents and information obtained pursuant to Condition 9.1 and the Authority 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, the Authority will give the Grantee a reasonable opportunity to make representations on the proposed disclosure before the Authority makes a final decision whether to disclose the information.

10. Ownership, Shareholding and Management Arrangements

- 10.1 The Grantee shall obtain the Authority's approval for the appointment of its Chairman, Board of Directors and Chief Executive Officer and shall provide the Authority 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 the Authority for approval at least one (1) calendar 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 4G and/or IMT-Advanced, and other telecommunication services (if approved by the Authority), 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 fully with and provide all necessary assistance to (including providing such information as may be requested by) the Authority for the purposes of co-ordinating and managing the use of radio frequencies in relation to neighbouring countries and within Singapore, including but not limited to the reduction of emission levels of any radio-communication stations comprised in the Systems.
- 11.3 Subject to the Act, the IMDA 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 The Grantee must augment its existing networks using all or part of its Assigned Radio Frequency Spectrum to provide nationwide 4G and/or IMT-Advanced telecommunication services by 31 December 2018.

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 the Authority, 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, the Authority 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 2.5 GHz Spectrum Right (2017) to any person or persons:

- (a) except with the prior written approval of the Authority;
- (b) except in accordance with the Act, the IMDA Act, the Telecommunications (Radio-communication) Regulations, the Code of Practice for Competition in the Provision of Telecommunication Services, and the rules and procedures relating to spectrum trading published by the Authority from time to time; and
- (c) unless the Grantee has augmented its existing networks using the Assigned Radio Frequency Spectrum to provide nationwide 4G and/or IMT-Advanced telecommunication services coverage in accordance with Condition 11.4.

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

13.3 No assignment, transfer, trading, dealing with or disposal of the whole or any part of the rights, privileges, duties and/or obligations under this 2.5 GHz Spectrum Right (2017) shall take effect until the conditions in Condition 13.1 are satisfied.

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

14. Spectrum Sharing

14.1 The Grantee may, with the Authority's prior written approval and subject to such conditions as the Authority may in its discretion impose, enter into a commercial agreement with another person for the use of the Assigned Radio Frequency Spectrum, in accordance with the conditions of this 2.5 GHz Spectrum Right (2017), for the purpose of operating a station and/or network

subject to that person obtaining a station (spectrum) licence or a network (spectrum) licence, as the case may be (hereinafter referred to as “spectrum sharing agreement”).

- 14.2 Without prejudice to Condition 14.1, the Grantee shall, where directed by the Authority, negotiate in good faith and in a commercially reasonable manner with such person as the Authority may direct for the purpose of entering into a spectrum sharing agreement.
- 14.3 The Grantee shall, where required by the Authority, allow the shared use of the Assigned Radio Frequency Spectrum (or part thereof) with another operator for short term usage during national events or where such use is in the public interest, including the suspension and/or cessation of its operations during such events to enable such shared use.
- 14.4 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 IMDA Act, the Telecommunications (Radio-communication) Regulations, and the rules and procedures relating to spectrum sharing published by the Authority from time to time.
- 14.5 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 2.5 GHz Spectrum Right (2017)

15.1 In the event that the Grantee desires to terminate this 2.5 GHz Spectrum Right (2017), the Grantee must obtain the Authority's approval in writing at least six months in advance.

15.2 No termination of this 2.5 GHz Spectrum Right (2017) shall take effect until the Authority's approval in writing is obtained under Condition 15.1.

16. Suspension and Cancellation of 2.5 GHz Spectrum Right (2017)

16.1 The Authority may suspend or cancel the 2.5 GHz Spectrum Right (2017) in whole or in part, and/or impose a financial penalty of such amount as the Authority thinks fit, 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 2.5 GHz Spectrum Right (2017) shall be without prejudice to the rights and remedies which may accrue to the Grantee or the Authority under this 2.5 GHz Spectrum Right (2017) 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 2.5 GHz Spectrum Right (2017) fee paid under Condition 4.1 or any other fee paid in advance, whether in whole or in part.

18. Variation of 2.5 GHz Spectrum Right (2017)

18.1 The Authority may vary the conditions of this 2.5 GHz Spectrum Right (2017) in accordance with the Telecommunications (Radio-communication) Regulations.

19. Resumption of 2.5 GHz Spectrum Right (2017)

19.1 The Authority may, in accordance with Regulations 17 and 18 of the Telecommunications (Radio-communication) Regulations, resume this 2.5 GHz Spectrum Right (2017) 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 2.5 GHz Spectrum Right (2017) 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 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 the Authority 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 2.5 GHz Spectrum Right (2017) shall be governed by and construed according to the laws of Singapore.

22. Service of Notices

22.1 All notices under this 2.5 GHz Spectrum Right (2017) 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 2.5 GHz Spectrum Right (2017) shall remain in full force in every respect.

Issued on 1 July 2017



**Director-General (Telecoms & Post),
Asst. CE (Connectivity & Competition Development)
Info-communications Media Development Authority**

SCHEDULE OF INTERPRETATION

In this 2.5 GHz Spectrum Right (2017), 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 2.5 GHz Spectrum Right (2017) are for convenience of reference only and are not part of this 2.5 GHz Spectrum Right (2017) and shall not in any way affect the interpretation thereof;
- (c) Any word or expression used in this 2.5 GHz Spectrum Right (2017) shall have the same meaning as it has in the Act;
- (d) Any reference in this 2.5 GHz Spectrum Right (2017) to the Act shall include any regulations made thereunder;
- (e) Any reference in this 2.5 GHz Spectrum Right (2017) 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 2.5 GHz Spectrum Right (2017) to a person shall be deemed to include both corporations and natural and legal persons;
- (g) Any reference to monetary amounts in this 2.5 GHz Spectrum Right (2017) shall be deemed to be denominated in Singapore Dollars; and
- (h) Any reference to any Codes, guidelines or other rules or documents promulgated by the Authority 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:

Lower Frequency Limit	Upper Frequency Limit
2580 MHz	2600 MHz

SCHEDULE B

PAYMENT FOR THE GRANT OF 2.5 GHZ SPECTRUM RIGHT (2017)

Year	Payment Due Date	Payment Amounts Due ⁱⁱ
1 (Base Year)	20 June 2017	S\$47,600,000 ⁱⁱⁱ + S\$1,700,000 ^{iv} + S\$1,200 ^v + S\$30,800 ^{vi} = S\$49,332,000
2	30 June 2018	S\$30,800 ^{vi}
3	30 June 2019	S\$30,800 ^{vi}
4	30 June 2020	S\$30,800 ^{vi}
5	30 June 2021	S\$30,800 ^{vi}
6	30 June 2022	S\$30,800 ^{vi}
7	30 June 2023	S\$30,800 ^{vi}
8	30 June 2024	S\$30,800 ^{vi}
9	30 June 2025	S\$30,800 ^{vi}
10	30 June 2026	S\$30,800 ^{vi}
11	30 June 2027	S\$30,800 ^{vi}
12	30 June 2028	S\$30,800 ^{vi}
13	30 June 2029	S\$30,800 ^{vi}
14	30 June 2030	S\$30,800 ^{vi}
15	30 June 2031	S\$30,800 ^{vi}
16	30 June 2032	S\$30,800 ^{vi}

ⁱⁱ Excluding the applicable GST.

ⁱⁱⁱ Spectrum lot fee.

^{iv} Winning assignment bid.

^v Application and processing fee.

^{vi} Annual frequency management fee.