

SCHEDULE 15

CHARGES

SCHEDULE 15

CHARGES

CONTENTS

<u>1. RESIDENTIAL END-USER CONNECTION</u>	2
<u>2. NON-RESIDENTIAL END-USER CONNECTION</u>	5
<u>3. NBAP CONNECTION</u>	8
<u>4. CO TO CO CONNECTION</u>	11
<u>5. CO TO BUILDING MDF ROOM CONNECTION</u>	13
<u>6. BUILDING MDF ROOM TO FTTB NODE CONNECTION</u>	15
<u>7. FTTB NODE TO DP CONNECTION</u>	17
<u>8. BUILDING MDF ROOM TO RESIDENTIAL PREMISE CONNECTION</u>	20
<u>9. BUILDING MDF ROOM TO NON-RESIDENTIAL PREMISE CONNECTION</u>	23
<u>10. CO TO NBAP DP CONNECTION</u>	26
<u>11. NBAP DP TO NBAP TP CONNECTION</u>	29
<u>12. CO-LOCATION SERVICE</u>	32
<u>12A. RL TO RL INTERCONNECTION SERVICE</u>	36
<u>12B. CO-LOCATION SUPPLEMENTARY COOLING SERVICE</u>	38
<u>13. PATCHING SERVICE</u>	41
<u>14. OSS/BSS CONNECTION & PROFESSIONAL SERVICE</u>	42

SCHEDULE 15

CHARGES

GENERAL:

- (a) The Parties agree to pay the following Charges where applicable in accordance with clauses 5 & 6 of the main body of this ICO Agreement, and the Billing and settlement requirements set out in Schedule 16.
- (b) Except where otherwise indicated, if Charges are expressed to be estimates in this Schedule or elsewhere in this ICO Agreement, OpenNet reserves the right to adjust these Charges from time to time subject to approval from the Authority, and the Parties agree to pay the Charges as adjusted from time to time.
- (c) For the avoidance of doubt, if OpenNet incurs additional costs in relation to the provision of Mandated Services to the Requesting Licensee which cannot otherwise be recovered by OpenNet as a Charge under Schedule 15, OpenNet may recover these costs from the Requesting Licensee in accordance with the procedures set out in the relevant Schedule.
- (d) Where OpenNet has to determine Charges payable by the Requesting Licensee in this Schedule 15 on a one-time and case-by-case basis, OpenNet shall determine the Charges in accordance with the provisions of this ICO Agreement. Where the Requesting Licensee disputes OpenNet's determination of such Charges, the parties shall resolve such dispute in accordance with Schedule 17 of the ICO Agreement.

1. RESIDENTIAL END-USER CONNECTION

1.1 General

1.1.1 Detailed information on the service offerings for the Residential End-User Connection can be found in Schedule 1 of this ICO Agreement.

1.1.2 The charges listed below are the rates payable for the Residential End-User Connection applicable to both GPON with splitter and OE with active equipment, and are applicable regardless of whether the Residential End-User Connection is provided by the 1st or 2nd fibre strand.

1.2 Monthly Recurring Charge Per End-User Connection

DESCRIPTION	CHARGES (\$\$)
1:24 split ratio	\$15/month
1:1 split ratio	\$3500/month

1.3 Installation Charge

1.3.1 There shall be a one-time Installation Charge payable for per Residential End-User Connection. However, the Installation Charge will be waived unless the home-owner had refused entry to OpenNet’s staff or agent the first time. The Installation Charge below applies to per connection where the homes were passed. For the avoidance of doubt, there shall be no one-time Installation Charge payable for the 2nd fibre strand of the First Termination Point, and no Onsite Charges payable for the installation of the 2nd fibre strand of the First Termination Point.

1.3.2 The Installation Charge comprises of the charge payable for the Patching Service within the Building MDF Room, onsite manpower charges and cable drop from DP to 1st TP.

DESCRIPTION	CHARGES (\$\$)
High-Rise Residential Building/Non-Residential Building	\$220 per connection
Landed Residential Premise	\$450 per connection

1.4 Patching Charge in the CO

1.4.1 An additional Patching Charge in addition to the Installation Charge will be imposed if patching is required at OpenNet's FDF in the Central Office. This patching service will be performed automatically if required. Requesting Licensees will not be required to request separately for this service. This will be charged at \$40 per Patch Cable, irrespective of whether there are one (1) or two (2) patch points per Patch Cable.

DESCRIPTION	CHARGES (\$)
Per Patch Cable	\$40

1.5 Installation of Internal Cabling Charge

1.5.1 OpenNet may levy a charge for installation of internal cabling that exceeds fifteen (15) metres, measured from the point of entry to the Residential Premise to the First Termination Point, at \$33 per five (5) metres.

1.6 Onsite Charges

1.6.1 OpenNet will charge for every onsite visit according to the time spent by OpenNet's staff. There will be a minimum charge of \$130 per visit per staff up to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20
Monday to Friday	After 5.00pm to 9.00am the next day	\$30
Saturday	9.00 am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

1.7 Cancellation Charge

1.7.1 OpenNet will charge for cancellation of any Request submitted by the Requesting Licensee before the RFS date.

1.7.2 The Cancellation Charge shall be at the same rate as the Installation Charge and the charge for installation of internal cabling exceeding fifteen (15) metres (where applicable) for the requested service.

1.8 Pre-mature Termination Charge

1.8.1 Pre-mature termination of service contracts will be liable to charges at 100% of the remaining contractual value.

1.9 No Fault Found Charge

1.9.1 No Fault Found will be charged at \$280 per report.

1.10 Joint Investigation Charge

1.10.1 OpenNet will charge for every joint investigation visit according to the time spent by OpenNet's staff. There will be a minimum charge of \$130 per visit per staff up to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (S\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20
Monday to Friday	After 5.00pm to 9.00am the next day	\$30
Saturday	9.00am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

1.11 Redundancy Service Charges

1.11.1 OpenNet will provide Redundancy Service at the same Monthly Recurring Charge listed above.

2. NON-RESIDENTIAL END-USER CONNECTION

2.1 General

2.1.1 Detailed information on the service offerings for the Non-Residential End-User Connection can be found in Schedule 2 of this ICO Agreement.

2.1.2 The charges listed below are the rates payable for the Non-Residential End-User Connection applicable to both GPON with splitter and OE with active equipment.

2.1.3 For the avoidance of doubt, all charges in this Section 2 apply on a per connection basis.

2.2 Monthly Recurring Charge Per End-User Connection

DESCRIPTION	CHARGES (\$\$)
1: 16 split ratio	\$50/month
1:1 split ratio	\$3500/month

2.3 Installation Charges

2.3.1 The one-time Standard Installation Charge includes charges for Patching Service at the Building MDF Room and onsite manpower charges.

2.3.2 Where requested by the Requesting Licensee, the Installation of Network Charge shall be payable for the installation of vertical fibre / in-building cabling, ducting, enclosure and/or cable tray from the FTTB Node to the 1st TP of the Non-Residential Premise.

DESCRIPTION	CHARGES (\$\$)
Standard Installation Charge	\$150 per connection
Installation of Network Charge	\$363 per connection

2.4 Patching Charge in the CO

2.4.1 An additional Patching Charge in addition to the Installation Charge will be imposed if patching is required at OpenNet's FDF in the Central Office. This patching service will be performed automatically if required. Requesting Licensees will not be required to request separately for this service. This will be

charged at \$40 per Patch Cable, irrespective of whether there are one (1) or two (2) patch points per Patch Cable.

DESCRIPTION	CHARGES (\$\$)
Per Patch Cable	\$40

2.5 Onsite Charges

2.5.1 OpenNet will charge for every onsite visit according to the time spent by OpenNet's staff. There will be a minimum charge of \$130 per visit per staff up to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (\$\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20
Monday to Friday	After 5.00pm to 9.00am the next day	\$30
Saturday	9.00am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

2.6 Cancellation Charge

2.6.1 OpenNet will charge for cancellation of any Request submitted by the Requesting Licensee before the RFS date.

2.6.2 The Cancellation Charge shall be at the same rate as the respective Installation Charge for the requested service.

2.7 Pre-mature Termination Charge

2.7.1 Pre-mature termination of service contracts will be liable to charges at 100% of the remaining contractual value.

2.8 No Fault Found Charges

2.8.1 No Fault Found will be charged at \$280 per report.

2.9 Joint Investigation Charge

2.9.1 OpenNet will charge for every joint investigation visit according to the time spent by OpenNet's staff. There will be a minimum charge of \$130 per visit per staff up to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (\$\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20
Monday to Friday	After 5.00pm to 9.00am the next day	\$30
Saturday	9.00am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

2.10 Redundancy Service Charges

2.10.1 OpenNet will provide Redundancy Services at the same Monthly Recurring Charge listed above.

3. NBAP CONNECTION

3.1 General

3.1.1 Detailed information on the service offerings for the NBAP Connection can be found in Schedule 3 of this ICO Agreement.

3.1.2 The charges listed below are the prices payable for the NBAP Connection applicable to both GPON with splitter and OE with the Requesting Licensee’s active equipment.

3.2 Monthly Recurring Charge Per NBAP Connection

DESCRIPTION	CHARGES (\$)
1: 16 split ratio	\$185/month

3.3 Installation Charges

3.3.1 The one-time Standard Installation Charge payable includes charges for Patching Service at the Building MDF Room and onsite manpower charges.

3.3.2 There will also be a one-time charge payable for digging/trenching work done in order to lay the ducts. This charge will be cost-oriented and determined on a case-by-case basis depending on the necessary work scope.

DESCRIPTION	CHARGES (\$)
Standard Installation Charge	\$150 per connection
Digging/Trenching Work	Case-by-case basis

3.4 Patching Charge

3.4.1 An additional Patching Charge in addition to the Installation Charge will be imposed if patching is required at OpenNet’s FDF in the Central Office. This patching service will be performed automatically if required. Requesting Licensees will not be required to request separately for this service. This will be charged at \$40 per Patch Cable, irrespective of whether there are one (1) or two (2) patch points per Patch Cable.

DESCRIPTION	CHARGES (\$)
-------------	--------------

Per Patch Cable	\$40
-----------------	------

3.5 Onsite Charges

3.5.1 OpenNet will charge for every onsite visit according to the time spent by OpenNet’s staff. There will be a minimum charge of \$130 per visit per staff up to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (\$\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20
Monday to Friday	After 5.00pm to 9.00am the next day	\$30
Saturday	9.00am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

3.6 Cancellation Charges

3.6.1 In the event that the Requesting Licensee fails to provide its acceptance of the service activation period and/or agreement to pay the one-time installation charge in accordance with clause 5.11 of Schedule 3, the Requesting Licensee shall be liable to cancellation charges which shall include the Standard Installation Charge and any other incidental costs and/or expenses which are reasonably incurred by OpenNet in connection with the evaluation of the cancelled Request (to be recovered on a cost-oriented basis).

3.6.2 In the event that the Requesting Licensee decides to cancel its Request before the RFS date but after its acceptance of the service activation period and agreement to pay the one-time Installation Charge, the Requesting Licensee shall be liable to cancellation charges which shall include the Standard Installation Charge, the charge payable for digging/trenching work and any other incidental costs and/or expenses which are reasonably incurred by OpenNet in connection with the cancelled Request (to be recovered on a cost-oriented basis).

3.7 Pre-mature Termination Charge

3.7.1 Pre-mature termination of service contracts will be liable to charges at 100% of the remaining contractual value.

3.8 No Fault Found Charge

3.8.1 No Fault Found will be charged at \$280 per report.

3.8.2 Trouble Report generation (at Requesting Licensee’s request) will be charged at \$100 per report.

3.9 Joint Investigation Charge

3.9.1 OpenNet will charge for every joint investigation visit according to the time spent by OpenNet’s staff. There will be a minimum charge of \$130 per visit per staff up to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (\$\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20
Monday to Friday	After 5.00pm to 9.00am the next day	\$30
Saturday	9.00am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

3.10 Redundancy Service Charges

3.10.1 OpenNet will provide Redundancy Service at the same Monthly Recurring Charge listed above.

4. CO TO CO CONNECTION

4.1 General

4.1.1 Detailed information on the service offerings for the CO to CO Connection can be found in Schedule 4 of this ICO Agreement.

4.1.2 The charges listed below are the charges payable for per segment of CO to CO Connection.

4.2 Monthly Recurring Charge Per Segment Connection

DESCRIPTION	CHARGES (\$\$)
Per segment fibre	\$6000/month

4.3 Standard Installation Charge

4.3.1 The one-time Standard Installation Charge payable includes charges for Patching Service at the CO and onsite manpower.

DESCRIPTION	CHARGES (\$\$)
Standard Installation Charge	\$50 per segment

4.4 Onsite Charges

4.4.1 OpenNet will charge for every onsite visit according to the time spent by OpenNet's staff. There will be a minimum charge of \$130 per visit per staff up to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (\$\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20
Monday to Friday	After 5.00pm to 9.00am the next day	\$30
Saturday	9.00am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

4.5 Cancellation Charge

4.5.1 OpenNet will charge for cancellation of any Request submitted by the Requesting Licensee before the RFS date.

4.5.2 The Cancellation Charge shall be at the same rate as the respective Installation Charge for the requested service.

4.6 Pre-mature Termination Charge

4.6.1 Pre-mature termination of service contracts will be liable to charges at 100% of the remaining contractual value.

4.7 No Fault Found Charge

4.7.1 No Fault Found will be charged at \$280 per report.

4.8 Joint Investigation Charge

4.8.1 OpenNet will charge for every joint investigation visit according to the time spent by OpenNet’s staff. There will be a minimum charge of \$130 per visit per staff up to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (\$\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20
Monday to Friday	After 5.00pm to 9.00am the next day	\$30
Saturday	9.00am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

4.9 Redundancy Service Charges

4.9.1 OpenNet will provide Redundancy Service at the same Monthly Recurring Charge listed above.

5. CO TO BUILDING MDF ROOM CONNECTION

5.1 General

5.1.1 Detailed information on the service offerings for the CO to Building MDF Room Connection can be found in Schedule 5 of this ICO Agreement.

5.1.2 The charges listed below are the prices payable for per segment of CO to Building MDF Room Connection.

5.2 Monthly Recurring Charge Per Segment Connection

DESCRIPTION	CHARGES (\$\$)
Per segment fibre	\$2300/month

5.3 Standard Installation Charge

5.3.1 The Standard Installation Charge includes charges for Patching Service at the CO and at the Building MDF Room, and onsite manpower.

DESCRIPTION	CHARGES (\$\$)
Standard Installation Charge	\$180 per segment

5.4 Onsite Charges

5.4.1 OpenNet will charge for every onsite visit according to the time spent by OpenNet's staff. There will be a minimum charge of \$130 per visit per staff up to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (\$\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20
Monday to Friday	After 5.00pm to 9.00am the next day	\$30
Saturday	9.00am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

5.5 Cancellation Charge

5.5.1 OpenNet will charge for cancellation of any Request submitted by the Requesting Licensee before the RFS date.

5.5.2 The Cancellation Charge shall be at the same rate as the respective Installation Charge for the requested service.

5.6 Pre-mature Termination Charge

5.6.1 Pre-mature termination of service contracts will be liable to charges at 100% of the remaining contractual value.

5.7 No Fault Found Charge

5.7.1 No Fault Found will be charged at \$280 per report.

5.8 Joint Investigation Charge

5.8.1 OpenNet will charge for every joint investigation visit according to the time spent by OpenNet’s staff. There will be a minimum charge of \$130 per visit per staff up to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (\$\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20
Monday to Friday	After 5.00pm to 9.00am the next day	\$30
Saturday	9.00am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

5.9 Redundancy Service Charges

5.9.1 OpenNet will provide Redundancy Service at the same Monthly Recurring Charge listed above.

6. BUILDING MDF ROOM TO FTTB NODE CONNECTION

6.1 General

6.1.1 Detailed information on the service offerings for the Building MDF Room to FTTB Node Connection can be found in Schedule 6 of this ICO Agreement.

6.1.2 The charges listed below are the prices payable for per segment of Building MDF Room to FTTB Node Connection.

6.2 Monthly Recurring Charge Per Segment Connection

DESCRIPTION	CHARGES (\$\$)
Per segment fibre	\$1200/month

6.3 Standard Installation Charge

6.3.1 The Standard Installation Charge includes charges for Patching Service at the Building MDF Room and at the FTTB Node and onsite manpower charges.

DESCRIPTION	CHARGES (\$\$)
Standard Installation Charge	\$300 per segment

6.4 Onsite Charges

6.4.1 OpenNet will charge for every onsite visit according to the time spent by OpenNet's staff. There will be a minimum charge of \$130 per visit per staff up to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (\$\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20
Monday to Friday	After 5.00pm to 9.00am the next day	\$30
Saturday	9.00am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

6.5 Cancellation Charge

6.5.1 OpenNet will charge for cancellation of any Request submitted by the Requesting Licensee before the RFS date.

6.5.2 The Cancellation Charge shall be at the same rate as the respective Installation Charge for the requested service.

6.6 Pre-mature Termination Charge

6.6.1 Pre-mature termination of service contracts will be liable to charges at 100% of the remaining contractual value.

6.7 No Fault Found Charge

6.7.1 No Fault Found will be charged at \$280 per report.

6.8 Joint Investigation Charge

6.8.1 OpenNet will charge for every joint investigation visit according to the time spent by OpenNet’s staff. There will be a minimum charge of \$130 per visit per staff up to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (\$\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20
Monday to Friday	After 5.00pm to 9.00am the next day	\$30
Saturday	9.00am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

6.9 Redundancy Service Charges

6.9.1 OpenNet will provide Redundancy Service at the same Monthly Recurring Charge listed above.

7. FTTB NODE TO DP CONNECTION

7.1 General

7.1.1 Detailed information on the service offerings for the FTTB to DP Connection can be found in Schedule 7 of this ICO Agreement.

7.1.2 The charges listed below are the prices payable per segment of FTTB Node to DP Connection.

7.2 Monthly Recurring Charge Per Segment Connection

DESCRIPTION	CHARGES (S\$)
Per Segment Fibre (Residential)	\$7.50/month
Per Segment Fibre (Non-Residential)	\$30/month

7.3 Installation Charges

7.3.1 The Standard Installation Charge will include Patching Service at the FTTB Node and at the DP, onsite manpower and patch cable charges.

7.3.2 Where OpenNet has not rolled out its Network to the DP for the Non-Residential Building, the Installation of Network Charge is applicable for the installation of vertical fibre / in-building cabling, ducting, enclosure and/or cable tray from the FTTB Node to the DP. This Charge will be cost-oriented and determined on a case-by-case basis depending on the necessary work scope.

DESCRIPTION	CHARGES (S\$)
Standard Installation Charge (Residential)	\$260 per segment
Standard Installation Charge (Non-Residential)	\$440 per segment
Installation of Network Charge	Case-by-case basis

7.4 Onsite Charges

7.4.1 OpenNet will charge for every onsite visit according to the time spent by OpenNet's staff. There will be a minimum charge of \$130 per visit per staff up to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (\$\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20
Monday to Friday	After 5.00pm to 9.00am the next day	\$30
Saturday	9.00am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

7.5 Cancellation Charge

7.5.1 OpenNet will charge for cancellation of any Request submitted by the Requesting Licensee before the RFS date.

7.5.2 The Cancellation Charge shall be at the same rate as the respective Installation Charge for the requested service.

7.6 Rejection Charge

7.6.1 The Rejection Charge shall be fixed at \$150.

7.7 Pre-mature Termination Charge

7.7.1 Pre-mature termination of service contracts will be liable to charges at 100% of the remaining contractual value.

7.8 No Fault Found Charge

7.8.1 No Fault Found will be charged at \$280 per report.

7.9 Joint Investigation Charge

7.9.1 OpenNet will charge for every joint investigation visit according to the time spent by OpenNet's staff. There will be a minimum charge of \$130 per visit per staff up to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (\$\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20
Monday to Friday	After 5.00pm to 9.00am the next day	\$30

Saturday	9.00am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

7.10 Redundancy Service Charges

7.10.1 OpenNet will provide Redundancy Service at the same Monthly Recurring Charge listed above.

8. BUILDING MDF ROOM TO RESIDENTIAL PREMISE CONNECTION

8.1 General

8.1.1 Detailed information on the service offerings for the Building MDF Room to Residential Premise Connection can be found in Schedule 8 of this ICO Agreement.

8.1.2 The charges listed below are the rates payable for per segment of Building MDF Room to Residential Premise Connection.

8.2 Monthly Recurring Charge Per Segment Connection

DESCRIPTION	CHARGES (\$)
Per Segment Fibre	\$1200/month

8.3 Installation Charge

8.3.1 The Installation Charge is waived unless the home-owner refused entry to OpenNet's staff or agent the first time. The Installation Charges below apply per connection where the homes were passed.

8.3.2 The Installation Charge includes Patching Service at the Building MDF Room and onsite manpower and cable drop from DP to 1st TP.

DESCRIPTION	CHARGES (\$)
High-Rise Residential Building/Non-Residential Building	\$220 per premise
Landed Residential Premise	\$450 per premise

8.4 Installation of Internal Cabling Charge

8.4.1 OpenNet may charge for installation of internal cabling that exceeds fifteen (15) metres at \$33 per five (5) metres

8.5 Onsite Charges

8.5.1 OpenNet will charge for every onsite visit according to the time spent by OpenNet's staff. There will be a minimum charge of \$130 per visit per staff up to

the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (S\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20
Monday to Friday	After 5.00pm to 9.00am the next day	\$30
Saturday	9.00am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

8.6 Cancellation Charge

8.6.1 OpenNet will charge for cancellation of any Request submitted by the Requesting Licensee before the RFS date.

8.6.2 The Cancellation Charge shall be at the same rate as the respective Installation Charge and the charge for installation of internal cabling exceeding fifteen (15) metres (where applicable) for the requested service.

8.7 Pre-mature Termination Charge

8.7.1 Pre-mature termination of service contracts will be liable to charges at 100% of the remaining contractual value.

8.8 No Fault Found Charge

8.8.1 No Fault Found will be charged at \$280 per report.

8.9 Joint Investigation Charge

8.9.1 OpenNet will charge for every joint investigation visit according to the time spent by OpenNet's staff. There will be a minimum charge of \$130 per visit per staff up to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (S\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20

Monday to Friday	After 5.00pm to 9.00am the next day	\$30
Saturday	9.00am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

8.10 Redundancy Service Charges

8.10.1 OpenNet will provide Redundancy Service at the same Monthly Recurring Charge listed above.

9. BUILDING MDF ROOM TO NON-RESIDENTIAL PREMISE CONNECTION

9.1 General

9.1.1 Detailed information on the service offerings for the Building MDF Room to Non-Residential Premise Connection can be found in Schedule 9 of this ICO Agreement.

9.1.2 The charges listed below are the rates payable for per segment of Building MDF Room to Non-Residential Premise Connection.

9.1.3 For the avoidance of doubt, all charges in this Section 9 apply on a per connection basis.

9.2 Monthly Recurring Charge Per Segment Connection

DESCRIPTION	CHARGES (\$)
Per Segment Fibre	\$1200/month

9.3 Installation Charges

9.3.1 The Standard Installation Charge includes charges for Patching Service at the Building MDF Room and onsite manpower charges.

9.3.2 The Installation of Network Charge includes installation of vertical fibre / in-building cabling, ducting, enclosure, cable tray from the Building MDF Room to the 1st TP of the Non-Residential Premise. This Charge will be cost-oriented and determined on a case-by-case basis depending on the necessary work scope.

DESCRIPTION	CHARGES (\$)
Standard Installation Charge	\$220 per segment
Installation of Network Charge	Case-by-case basis

9.4 Onsite Charges

9.4.1 OpenNet will charge for every onsite visit according to the time spent by OpenNet's staff. There will be a minimum charge of \$130 per visit per staff up to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (S\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20
Monday to Friday	After 5.00pm to 9.00am the next day	\$30
Saturday	9.00am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

9.5 Cancellation Charge

9.5.1 OpenNet will charge for cancellation of any Request submitted by the Requesting Licensee before the RFS date.

9.5.2 The Cancellation Charge shall be at the same rate as the respective Installation Charge for the requested service.

9.6 Rejection Charge

9.6.1 The Rejection Charge shall be fixed at \$150.

9.7 Pre-mature Termination Charge

9.7.1 Pre-mature termination of service contracts will be liable to charges at 100% of the remaining contractual value.

9.8 No Fault Found Charge

9.8.1 No Fault Found will be charged at \$280 per report.

9.9 Joint Investigation Charge

9.9.1 OpenNet will charge for every joint investigation visit according to the time spent by OpenNet’s staff. There will be a minimum charge of \$130 per visit per staff up to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (S\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20

Monday to Friday	After 5.00pm to 9.00am the next day	\$30
Saturday	9.00am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

9.10 Redundancy Service Charges

9.10.1 OpenNet will provide Redundancy Service at the same Monthly Recurring Charge listed above.

10. CO TO NBAP DP CONNECTION

10.1 General

10.1.1 Detailed information on the service offerings for the CO to NBAP DP Connection can be found in Schedule 10 of this ICO Agreement.

10.1.2 The charges listed below are the rates payable for per segment of CO to NBAP DP Connection.

10.2 Monthly Recurring Charge Per Segment Connection

DESCRIPTION	CHARGES (\$\$)
Per Segment Fibre	\$3500/month

10.3 Installation Charges

10.3.1 The one-time Standard Installation Charge includes Patching Services at the CO and NBAP DP and onsite manpower.

10.3.2 There will also be a one-time charge payable for digging/trenching work done in order to lay the ducts. This charge will be cost-oriented and determined on a case-by-case basis depending on the necessary work scope.

DESCRIPTION	CHARGES (\$\$)
Standard Installation Charge	\$300 per segment
Digging/Trenching Work	Case-by-case basis

10.4 Onsite Charges

10.4.1 OpenNet will charge for every onsite visit according to the time spent by OpenNet’s staff. There will be a minimum charge of \$130 per visit per staff up to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (\$\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20
Monday to Friday	After 5.00pm to 9.00am the next day	\$30

Saturday	9.00am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

10.5 Cancellation Charges

10.5.1 In the event that the Requesting Licensee fails to provide its acceptance of the service activation period and/or agreement to pay the one-time installation charge in accordance with clause 5.11 of Schedule 10, the Requesting Licensee shall be liable to cancellation charges which shall include the Standard Installation Charge and any other incidental costs and/or expenses which are reasonably incurred by OpenNet in connection with the evaluation of the cancelled Request (to be recovered on a cost-oriented basis).

10.5.2 In the event that the Requesting Licensee decides to cancel its Request before the RFS date but after its acceptance of the service activation period and agreement to pay the one-time Installation Charge, the Requesting Licensee shall be liable to cancellation charges which shall include the Standard Installation Charge, the charge payable for digging/trenching work and any other incidental costs and/or expenses which are reasonably incurred by OpenNet in connection with the cancelled Request (to be recovered on a cost-oriented basis).

10.6 Pre-mature Termination Charge

10.6.1 Pre-mature termination of service contracts will be liable to charges at 100% of the remaining contractual value.

10.7 No Fault Found Charge

10.7.1 No Fault Found will be charged at \$280 per report.

10.7.2 Trouble Report generation (at Requesting Licensee's request) will be charged at \$100 per report.

10.8 Joint Investigation Charge

10.8.1 OpenNet will charge for every joint investigation visit according to the time spent by OpenNet's staff. There will be a minimum charge of \$130 per visit per staff up

to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (\$\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20
Monday to Friday	After 5.00pm to 9.00am the next day	\$30
Saturday	9.00am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

10.9 Redundancy Service Charges

10.9.1 OpenNet will provide Redundancy Service at the same Monthly Recurring Charge listed above.

11. NBAP DP TO NBAP TP CONNECTION

11.1 General

11.1.1 Detailed information on the service offerings for the NBAP DP to NBAP TP Connection can be found in Schedule 11 of this ICO Agreement.

11.1.2 The charges listed below are the rates payable for per segment of NBAP DP to NBAP TP Connection.

11.2 Monthly Recurring Charge Per Segment Connection

DESCRIPTION	CHARGES (\$\$)
Per Segment Fibre	\$1325/month

11.3 Installation Charges

11.3.1 The one-time Standard Installation Charge includes Patching Service at the NBAP DP and onsite manpower.

11.3.2 There will also be a one-time charge payable for digging/trenching work done in order to lay the ducts. This charge will be cost-oriented and determined on a case by case basis depending on the necessary work scope.

DESCRIPTION	CHARGES (\$\$)
Standard Installation Charge	\$150 per segment
Digging/Trenching Work	Case-by-case basis

11.4 Onsite Charges

11.4.1 OpenNet will charge for every onsite visit according to the time spent by OpenNet’s staff. There will be a minimum charge of \$130 per visit per staff up to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (\$\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20
Monday to Friday	After 5.00pm to 9.00am the next day	\$30
Saturday	9.00am to 1.00pm	\$20

Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

11.5 Cancellation Charges

11.5.1 In the event that the Requesting Licensee fails to provide its acceptance of the service activation period and/or agreement to pay the one-time installation charge in accordance with clause 5.10 of Schedule 11, the Requesting Licensee shall be liable to cancellation charges which shall include the Standard Installation Charge and any other incidental costs and/or expenses which are reasonably incurred by OpenNet in connection with the evaluation of the cancelled Request (to be recovered on a cost-oriented basis).

11.5.2 In the event that the Requesting Licensee decides to cancel its Request before the RFS date but after its acceptance of the service activation period and agreement to pay the one-time Installation Charge, the Requesting Licensee shall be liable to cancellation charges which shall include the Standard Installation Charge, the charge payable for digging/trenching work and any other incidental costs and/or expenses which are reasonably incurred by OpenNet in connection with the cancelled Request (to be recovered on a cost-oriented basis).

11.6 Pre-mature Termination Charge

11.6.1 Pre-mature termination of service contracts will be liable to charges at 100% of the remaining contractual value.

11.7 No Fault Found Charge

11.7.1 No Fault Found will be charged at \$280 per report.

11.8 Joint Investigation Charge

11.8.1 OpenNet will charge for every joint investigation visit according to the time spent by OpenNet's staff. There will be a minimum charge of \$130 per visit per staff up to the first two hours. Subsequent hour blocks spent will be charged according to the rates listed below.

PERIOD	TIME	RATE (\$\$/hr)
Monday to Friday	9.00am to 5.00pm	\$20

Monday to Friday	After 5.00pm to 9.00am the next day	\$30
Saturday	9.00am to 1.00pm	\$20
Saturday	After 1.00pm to 12.00am the next day	\$30
Sundays and Public Holidays	12.00am to 9.00am the next day	\$40

11.9 Redundancy Service Charges

11.9.1 OpenNet will provide Redundancy Service at the same Monthly Recurring Charge listed above.

12. CO-LOCATION SERVICE

12.1 General

12.1.1 Detailed information on the service offerings for the Co-Location Service can be found in Schedule 12 of this ICO Agreement.

12.1.2 The charges listed below are applicable for Co-Location Service in the Central Office.

12.2 Co-location Space

12.2.1 Depending on the term of the licence requested by the Requesting Licensee, different monthly rates shall be payable. This cost is charged based on the total equipment footprint, provided always that the Requesting Licensee has complied fully with all the requirements contained in Schedule 12. For avoidance of doubt, the total equipment footprint shall be rounded up to the next whole unit.

12.2.2 The respective rates for the different length of terms are listed in the table below.

DESCRIPTION	CHARGES (S\$)
Per Square Metre (for 25 year term)	\$367/month*
Per Square Metre (for 2 year term)	\$500/month*

* The following basic facilities will be provided at the Co-location Space (as part of the Co-Location Service):

- Air conditioning system (which provides cooling of up to 250W per square metre);
- Independent air-cooled fan coil unit (which provides backup cooling);
- Power (redundancy unit);
 - N+N dual feed incoming electricity supply;
 - Standby generator;
 - Underground fuel storage facility (which ensures adequate fuel for 48 hours during emergencies, supplemented by 4-hour urgent diesel supply arrangement that is subject to Government’s fuel rationing policy during emergencies);
- Transmission Tie Cable;

- Gas suppression system (FM200 or similar);
- Security for Central Office (24 hours a day, 7 days a week); and
- Security card access system.

12.3 Power Charges

12.3.1 OpenNet will provide power to the Requesting Licensees. There will be a minimum of 13 fused amp for AC and 20 fused amp for DC.

DESCRIPTION	CHARGES (\$\$)
Per Fused Amp	\$32/month

12.4 Ordering Charge

12.4.1 Each Co-location Request will be charged at \$50. This charge will be payable even if the order is rejected unless the Request was wrongfully rejected by OpenNet.

DESCRIPTION	CHARGES (\$\$)
Per Order	\$50

12.5 Project Study

12.5.1 Project study charges will be cost-oriented and determined on a case-by-case basis depending on the necessary work scope.

12.6 Site Preparation & Installation Charge

12.6.1 Site Preparation & Installation will include site preparation work (M&E works) and charges for acquiring permits (where necessary) from the Fire Safety Bureau and Building & Construction Authority.

12.6.2 This Charge will be cost-oriented and calculated on a case-by-case basis depending on the necessary work scope.

12.7 Onsite Charges

12.7.1 OpenNet will provide supervision of onsite work and escort services. This service will be charged according to the time spent by OpenNet’s staff. The detailed break-down of the rates are listed in the table below.

PERIOD	CHARGE (\$\$)
During Office Hours (Monday to Friday 9.00am to 5.00pm)	\$90.50/hr (min of 2hrs)
After Office Hours (Monday to Friday after 5.00pm to 9.00am the next weekday, or Friday after 5.00pm to Saturday 12.00am)	\$135.80/hr (min of 2hrs)
Saturday	\$135.80/hr (min of 4hrs)
Sunday to 9.00am the next day (requiring less than 4 hrs)	\$800 (per activation)
Sunday to 9.00am the next day (requiring more than 4 hrs)	\$1,600 (per activation)
Public Holidays to 9.00am the next day	\$1,500 (per activation)

12.7.2 In addition to the charges stated above, the Requesting Licensee will have to reimburse OpenNet for the transport claims of its staff.

12.8 Physical Access/ Emergency Physical Access Charge

12.8.1 This Charge will be cost-oriented and determined on a case-by-case basis depending on the necessary work scope.

12.9 Updating Access List Charge

DESCRIPTION	CHARGES (\$\$)
Per Update	\$20

12.10 Co-location Equipment Modification Charges

12.10.1 This Charge will be cost-oriented and calculated on a case-by-case basis depending on the necessary work scope.

12.11 Termination Charges

12.11.1 Termination of the Co-location Service involves:

- (i) Reinstatement of the Co-location Space;

- (ii) Removal of Patching Service;
- (iii) Recovery of equipment (including the Transmission Tie Cable from the Co-location Space)

12.11.2 This Charge will be cost-oriented and calculated on a case-by-case basis depending on the necessary work scope.

12.12 Pre-mature Termination Charge

12.12.1 Pre-mature termination of service contracts will be liable to charges at 100% of the remaining contractual value.

12.13 Reconnection Charge

12.13.1 The Reconnection Charge will be applicable in the event of the lifting of suspension of the ICO Agreement or Schedule 12 (unless OpenNet was responsible for the said suspension), and will be charged on a per request per Central Office basis.

12.13.2 This Charge will be cost-oriented and calculated on a case-by-case basis depending on the necessary work scope.

12.14 Fibre Splicing Charge

12.14.1 The Fibre Splicing Charge is applicable for termination of the Transmission Tie Cable at the Requesting Licensee’s FDF in its Co-location Space.

DESCRIPTION	CHARGES (\$\$) Exclude materials
Fibre Splicing at the Requesting Licensee’s FDF	\$50 per splice

12.15 No Fault Found Charge

12.15.1 Same as Onsite Charges.

12A. RL TO RL INTERCONNECTION SERVICE

12A.1 General

12A.1.1 Detailed information on the service offerings for the RL to RL Interconnection Service can be found in Schedule 12A of this ICO Agreement.

12A.1.2 The charges listed below are applicable for the RL to RL Interconnection Service.

12A.2 Request Charge

12A.2.1 Each RL to RL Interconnection Request will be charged at \$50. This charge will be payable even if the order is rejected.

DESCRIPTION	CHARGES (\$\$)
Per Request	\$50

12A.3 Project Study

12A.3.1 Project study charges will be cost-oriented and determined on a case-by-case basis depending on the necessary work scope.

12A.4 Site Preparation & Installation Charge

12A.4.1 Site Preparation & Installation will include site preparation work (M&E works); setting up direct connections between two Requesting Licensees and charges for acquiring permits (where necessary) from the Fire Safety Bureau and Building & Construction Authority.

12A.4.2 This Charge will be cost-oriented and calculated on a case-by-case basis depending on the necessary work scope.

12A.5 Onsite Charges

12A.5.1 OpenNet will provide supervision of onsite work and escort services. This service will be charged according to the time spend by OpenNet’s staff. The detailed break-down of the rates are listed in the table below.

PERIOD	CHARGE (\$\$)
--------	---------------

During Office Hours (Monday to Friday 9.00am to 5.00pm)	\$90.50/hr (min of 2hrs)
After Office Hours (Monday to Friday after 5.00pm to 9.00am the next weekdays, or Friday after 5.00pm to Saturday 12.00am)	\$135.80/hr (min of 2hrs)
Saturday	\$135.80/hr (min of 4hrs)
Sunday to 9.00 am the next day (requiring less than 4 hrs)	\$800 (per activation)
Sunday to 9.00 am the next day (requiring more than 4 hrs)	\$1,600 (per activation)
Public Holidays to 9.00 am the next day	\$1,500 (per activation)

12A.5.2 In addition to the charges stated above, the Requesting Licensee will have to reimburse OpenNet for the transport claims of its staff.

12B. CO-LOCATION SUPPLEMENTARY COOLING SERVICE

12B.1 GENERAL

12B.1.1 Detailed information on the service offerings for the Co-Location Supplementary Cooling Service can be found in Schedule 12B of this ICO Agreement.

12B.1.2 The charges listed below are applicable for the Co-Location Supplementary Cooling Service.

12B.2 Ordering Charge

12B.2.1 Each Co-Location Supplementary Cooling Request will be charged at \$50. This charge will be payable even if the order is rejected unless the Request was wrongfully rejected by OpenNet.

DESCRIPTION	CHARGES (\$\$)
Per Order	\$50

12B.3 Project Study

12B.3.1 Project study charges will be charged on a per request basis.

DESCRIPTION	CHARGES (\$\$)
Per Order	\$1,000

12B.4 Co-Location Supplementary Cooling Service Charge

12B.4.1 OpenNet shall provide the Co-Location Supplementary Cooling Service to the Requesting Licensee at the following monthly rates:

DESCRIPTION	CHARGES (\$\$) per month
Per Cooling Unit ¹	\$1987.46

¹ Applicable only to Ayer Rajah CO, Bedok CO, Orchard CO, Tampines CO and Tuas CO

12B.5 Power Charges

12B.5.1 OpenNet will provide power for the Co-Location Supplementary Cooling System to the Requesting Licensee and charge according to consumption.

DESCRIPTION	CHARGES (\$\$)
Actual usage according to meter	110% of metered rate of OpenNet's energy provider

12B.6 Onsite Charges

12B.6.1 OpenNet will provide supervision of onsite work and escort services. This service will be charged according to the time spent by OpenNet's staff in accordance with (and not in addition to) the rates set out in Clause 12.7.1 above. In addition to these charges, the Requesting Licensee will also have to reimburse OpenNet for the transport claims of its staff.

12B.7 Physical Access/ Emergency Physical Access Charge

12B.7.1 This Charge will be cost-oriented and determined on a case-by-case basis depending on the necessary work scope. For the avoidance of doubt, for Physical Access / Emergency Physical Access in relation to Schedule 12B, the Charge in Clause 12.8.1 will not be levied in addition to this Charge.

12B.8 Cancellation Charges

12B.8.1 The Requesting Licensee shall be liable to cancellation charges which shall include all incidental costs and/or expenses which are reasonably incurred by OpenNet in connection with the cancelled Request (to be recovered on a cost-orientated basis).

12B.9 Pre-mature Termination Charge

12B.9.1 Pre-mature termination of service contracts will be liable to charges at 100% of the remaining contractual value.

12B.10 Reconnection Charge

12B.10.1 The Reconnection Charge will be applicable in the event of the lifting of suspension of the ICO Agreement or Schedule 12B (unless OpenNet was responsible for the said suspension), and will be charged on a per Cooling Unit basis.

DESCRIPTION	CHARGES (S\$)
Reconnecting per Overhead Cooling Unit (for Ayer Rajah CO, Bedok CO, Orchard CO and Tampines CO)	792
Reconnecting per In-row Cooling Unit (for Tuas CO)	1,100

12B.11 No Fault Found Charge

12B.11.1 Same as Onsite Charges.

12B.12 Relocation Charge

12B.12.1 This Charge will be cost-oriented and calculated on a case-by-case basis depending on the necessary work scope.

13. PATCHING SERVICE

13.1 General

13.1.1 Detailed information on the service offerings for the Patching Service can be found in Schedule 13 of this ICO Agreement.

13.2 Ordering Charge

13.2.1 The Ordering Charge is applicable per PSAR Form or PSDR Form submitted to OpenNet.

DESCRIPTION	CHARGES (\$\$)
Per Order	\$50

13.3 Patching Charge

13.3.1 The Patching Service provided by OpenNet will be charged by per Patch Cable, irrespective of whether there are one (1) or two (2) patch points per Patch Cable. The amount payable will depend on the Patching Location.

DESCRIPTION	CHARGES (\$\$)
CO	\$40 per patch point
MDF Room	\$160 per patch point
FTTB Node	\$160 per patch point
NBAP DP	\$160 per patch point

13.4 Termination Charge

13.4.1 The deactivation of the Patching Service and the removal of the relevant Patch Cable will be charged per Patch Cable, irrespective of whether there are one (1) or two (2) patch points per Patch Cable. The amount payable will depend on the Patching Location.

DESCRIPTION	CHARGES (\$\$)
CO	\$30 per patch point
MDF Room	\$150 per patch point
FTTB Node	\$150 per patch point
NBAP DP	\$150 per patch point

14. OSS/BSS CONNECTION & PROFESSIONAL SERVICE

14.1 General

14.1.1 Detailed information on the service offerings for the OSS/BSS Connection & Professional Service can be found in Schedule 14 of this ICO Agreement.

14.2 OSS/BSS Connection & Professional Service Charges

14.2.1 The Requesting Licensee shall pay the following one-time charge for the OSS/BSS Connection & Professional Service.

DESCRIPTION	CHARGES (S\$)
Per User Account	\$150

This page is intentionally left blank