

APPENDIX 3
REQUIRED MODIFICATIONS TO SCHEDULE 2

SCHEDULE 2

Non-Residential End-User Connection

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NON-RESIDENTIAL END-USER CONNECTION

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SCHEDULE 2
NON-RESIDENTIAL END-USER CONNECTION

SCHEDULE 2 – MODIFICATION REQUIRED

IDA Directed Modifications: IDA refers OpenNet to section 3 of the Explanatory Memorandum to this Direction. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to Schedule 2 in the manner specified therein. [ON 11 Apr 12 : Amended as per IDA’s Direction.]

IDA refers OpenNet to section 10 of the Explanatory Memorandum to this Direction. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to Schedule 2 in the manner specified therein. [ON 11 Apr 12 : Amended as per IDA’s Direction.]

IDA refers to section 12 of the Explanatory Memorandum to this Direction, in relation to the Missed Appointments Charges proposed by OpenNet. IDA notes that this Schedule 2 contains references to “Missed Appointment Charge”. Without limitation to section 12 of the Explanatory Memorandum, OpenNet should remove the references to “Missed Appointment Charge” in this Schedule 2 and propose modifications where necessary to meet the requirements set out in section 12 of the Explanatory Memorandum. [ON 11 Apr 12 : Amended as per IDA’s Direction.]

IDA notes that OpenNet may be offering services to a Non-Residential premise via multiple Termination Points. In this regard, there is merit for OpenNet to clarify in this Schedule 2 on how Requesting Licensee would be expected to identify the precise Termination Point for the purpose of ordering specific services under the ICO (e.g., removal of Termination Point). Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to Schedule 2 to address the above.

[ON 11 Apr 12 : Amended as per IDA’s Direction.]

1. SCOPE

This Schedule 2 sets out the terms and conditions under which OpenNet will provide the Requesting Licensee with a licence for:

- (i) Layer 1 Service (a service provided by OpenNet for the use of passive optical fibre cable) from OpenNet's designated Central Office (or "CO") to (a) the First Termination Point of a Non-Residential Premise (subject to clauses 6.3 and 6.4) or (b) otherwise—to the Termination Point in the telecommunication riser on the same level floor where the Non-Residential Premise is located (subject to clause 3.5) or (c) otherwise to the FTTB Node of the Non-Residential Premise where OpenNet's network ends, for the purpose of the Requesting Licensee providing GPON services; or
- (ii) Layer 1 Service from OpenNet's designated CO to (a) the First Termination Point of the Non-Residential Premise (subject to clauses 6.3 and 6.4) or otherwise (b) to the Termination Point in the telecommunication riser on the same level floor where the Non-Residential Premise is located (subject to clause 3.5) or otherwise (c) to the FTTB Node of the Non-Residential Premise where OpenNet's network ends, for the purpose of the Requesting Licensee providing OE services

(Non-Residential End-User Connection).

- 1.1 The Non-Residential End-User Connection is a service provided by OpenNet to the Requesting Licensee for the purpose of delivering GPON or OE services over the Layer 1 Services highlighted above at a Non-Residential Premise. For the avoidance of doubt, OpenNet is only obliged to provide Non-Residential End-User Connections through the 1st fibre strand in the First Termination Point. OpenNet may, on a case-by-case basis, provide a Non-Residential End-User Connection via a 2nd fibre strand in the First Termination Point, and such Non-Residential End-User Connection via the 2nd fibre strand shall be provided upon the same terms and conditions as the 1st fibre strand.
- 1.2 This Schedule only applies to Requesting Licensees who are FBOs.

2. SERVICE LEVEL GUARANTEES

- 2.1 OpenNet will provide the Service Level Guarantees in respect of the Non-Residential End-User Connection as set out in this Schedule. If OpenNet fails to meet any service activation period, Mean Time To Recovery or service level availability

(collectively called the **Service Level Guarantees**) applicable to this Schedule and the failure to meet the Service Level Guarantees is solely caused by OpenNet, its contractors and/or suppliers, OpenNet will provide a remedy in the form of a rebate to the Requesting Licensee in accordance with:

- (i) Clause 6.12 and any terms and conditions contained in this Schedule in respect of request and provisioning timeframes;
- (ii) Clause 11.14 and any terms and conditions contained in this Schedule in respect of fault rectification timeframes; and
- (iii) Clause 12.1 and any terms and conditions contained in this Schedule in respect of service level availability.

CLAUSE 2.2 – MODIFICATION REQUIRED

2.2 A claim by the Requesting Licensee shall be made in writing within thirty (30) Calendar Days of the completion of the relevant calendar month on which the Service Level Guarantees are measured. The amount in respect of any claim shall be paid to the Requesting Licensee in the form of a rebate. The Requesting Licensee acknowledges that a failure to make a claim within the specified timeframes under this paragraph means that the Requesting Licensee waives any entitlement to the Service Level Guarantee payment in respect of that claim. OpenNet will respond within (30) Calendar Days from date of claim stating if submission by Requesting Licensee is valid for rebates or additional information is required to be provided by the Requesting Licensee where OpenNet assessed the Requesting Licensee’s submission included invalid claims. For valid claims submitted within the timeframe, OpenNet shall provide the corresponding rebate in its next Invoice.

IDA Directed Modifications: Comments were received from industry respondents that OpenNet should process all claims within a 30-day period, following which any claims that remain unresolved should be automatically deemed to be approved. [ON 11 Apr 12 : ON disagreed that “any claims that remain unresolved should be automatically deemed to be approved.” Based on past experiences, ON has received duplicate claims from RLs. Additionally, per ICO, OpenNet will only pay on claims for which faults were reported.]

IDA considers that it is reasonable for the industry to expect OpenNet to process claims in a timely manner. However, IDA also recognises that OpenNet may face difficulties in complying with a 30-day timeframe, as

there are a number of Requesting Licensees who may submit claims to OpenNet at any time. In consideration of the above, IDA is prepared to allow OpenNet to propose a timeframe to process the submitted claim. OpenNet is required to provide satisfactory justification to IDA as to the reasonableness of the timeframe.

IDA is also of the view that in the interest of clarity, OpenNet should clarify whether the rebate will be credited into Requesting Licensee's account in the bill immediately after OpenNet had processed the claim.

Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 2.2 to address the above. [\[ON 11 Apr 12 : Amended as per IDA's Direction.\]](#)

2.3 If the Requesting Licensee is entitled to a rebate pursuant to the claim made hereunder, then the amount of the rebate will be credited into the Requesting Licensee's account after it has been processed by OpenNet and will be reflected in OpenNet's bill to the Requesting Licensee in accordance with OpenNet's billing cycle.

2.4 The guarantee and rebates provided by OpenNet are:

(i) of an ex-gratia nature and personal to the Requesting Licensee and are non-transferable; and

(ii) subject to this Schedule.

2.5 Despite anything to the contrary in this section, if the Requesting Licensee qualifies for any claim, OpenNet shall honour its obligations in respect of that claim but in the event of a dispute as to whether the Requesting Licensee qualifies for a claim or as to the quantum of the claim payable to the Requesting Licensee, the dispute shall be resolved in accordance with the Dispute Resolution Procedures in Schedule 17 of the ICO Agreement, or in the case of a Billing Dispute, in accordance with Schedule 16 of the ICO Agreement.

2.6 In addition to the specific terms and conditions of the Service Level Guarantees, the Service Level Guarantees shall not apply in any of the following circumstances:

(a) the Non-Residential End-User Connection is disconnected and/or reconnected by reason of it being suspended under the terms and conditions

of this Schedule or ICO Agreement, except where the suspension is due to OpenNet's fault;

- (b) fault due to any equipment, wiring and/or cabling owned or operated by the Requesting Licensee, building owners or End-Users or on behalf of the Requesting Licensee, building owners or End-Users;
- (c) provision or restoration of the Non-Residential End-User Connection where any site-coordination meeting, Joint Investigation Meeting or fault identification coordination meeting is involved, except where (a) the fault was caused by OpenNet; and (b) the Requesting Licensee has not contributed to any delay in setting up the meeting. Notwithstanding the above, in determining whether the Service Level Guarantees have been met by OpenNet, the time taken from the start of arranging any site-coordination meeting, Joint Investigation Meeting or fault identification coordination meeting up to the end of the meeting, shall always be excluded; or

CLAUSE 2.6(d) – MODIFICATION REQUIRED

(d) where OpenNet had used its best endeavours ~~needs~~ to obtain expeditiously or maintain any licence or permission necessary to the provision or restoration of the Non-Residential End-User Connection. Notwithstanding the above, in determining whether the Service Level Guarantees have been met by OpenNet, the time taken by OpenNet to obtain or maintain any licence or permission necessary to the provision or restoration of the Non-Residential End-User Connection shall always be excluded. In the event the Requesting Licensee raise a dispute questioning OpenNet's effort in obtaining the licence/permission, OpenNet will provide such evidence as may be available of its best endeavours;

IDA Directed Modifications: Comments were received that clause 2.6(d) should be subject to two requirements: (a) OpenNet must have used its best endeavours to obtain any licence or permission expeditiously; and (b) OpenNet must provide Requesting Licensees with evidence of such licence/permission, the steps taken to obtain it expeditiously and why OpenNet cannot obtain the licence/permission.

After careful consideration, IDA agrees that OpenNet should be required to use its best endeavours to obtain expeditiously the necessary licences or permission mentioned in clause 2.6(d). However, IDA is of the view that it is not necessary to require OpenNet to furnish evidence

of this in every case. Instead, it would be more efficient if OpenNet were required to furnish evidence only in the event that a challenge or dispute is raised by Requesting Licensees as to whether OpenNet has used its best endeavours in the manner described above.

Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 2.6(d) to incorporate the above requirements.

[ON 11 Apr 12 : Amended as per IDA's Direction.]

CLAUSE 2.6(e) – MODIFICATION REQUIRED

(e) OpenNet has difficulty accessing to or working in the building or Non-Residential End-User's Premise due to the building or premise being inaccessible, in unsafe working condition or in any other inadequate or deficient state despite best endeavours in obtaining permission or license required. In the event the Requesting Licensee raise a dispute questioning OpenNet's effort in obtaining the licence/permission, OpenNet will provide such evidence as may be available of its best endeavours :

IDA Directed Modifications: Comments were received that clause 2.6(e) should be subject to two requirements: (a) OpenNet must use its best endeavours to remedy any building access difficulty expeditiously, and (b) OpenNet must provide Requesting Licensees with evidence of such difficulty, the steps taken to remedy it expeditiously and why OpenNet cannot remedy the difficulty.

After careful consideration, IDA agrees that OpenNet should be required to use its best endeavours to remedy expeditiously the building access difficulties (including any cases of purported building management obstruction). However, IDA is of the view that it is not necessary to require OpenNet to furnish evidence of this in every case. Instead, it would be more efficient if OpenNet were required to furnish evidence only in the event that a challenge or dispute is raised by Requesting Licensees as to whether OpenNet has used its best endeavours to expeditiously remedy the building access difficulties.

Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 2.6(e) to incorporate the above requirements.

[ON 11 Apr 12 : Amended as per IDA's Direction.]

CLAUSE 2.6(f) – MODIFICATION REQUIRED

(f) delay in the provision or restoration of the Non-Residential End-User Connection caused by events beyond the reasonable control of OpenNet's reasonable control and/or its suppliers and contractors;

IDA Directed Modifications: Comments were received that clause 2.6(f) should be amended to state that OpenNet must be responsible for the acts and omissions of its suppliers and contractors. IDA notes that OpenNet is already liable in the case where the delay is caused by the acts or omission of OpenNet's suppliers and contractors. This is because it would be open to OpenNet to take appropriate measures against its suppliers and contractors. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 2.6(f) to clarify that nothing shall preclude OpenNet from being responsible for the acts and omissions of its contractors and suppliers. [ON 11 Apr 12 : Amended as per IDA's Direction.]

- (g) OpenNet network outages for which the Requesting Licensee has not reported a fault;
- (h) fault is reported by the Requesting Licensee but no fault is found or confirmed after due and careful investigation, and verification by OpenNet;
- (i) OpenNet is required to carry out scheduled service interruption and the Requesting Licensee has been informed in accordance with clause 9.5; or
- (j) OpenNet is required to carry out fibre diversion at the request of the Government Agencies, private developers or other relevant parties and the Requesting Licensee has been informed in accordance with clause 9.5.

(k) Where there is a request received from End-User or Requesting Licensee for Removal, Repair and Replacement and Relocation Requests.

CLAUSE 2.6(k) – MODIFICATION REQUIRED

~~(k) any Non-Residential End-User Connection with a contract term of 1 month.~~

IDA Directed Modifications: Comments were received that there is no valid reason to exclude those connections with a one-month contract term from the Service Level Guarantees, which are intended to cover

such matters as fault restoration. The inclusion of clause 2.6(k) effectively means that there is no obligation on OpenNet to restore faults on connections with one-month contract terms, and undermine the take-up of such connections, given that there would not be certainty as regards the reliability of the service. IDA considers that there is no good reason why appropriate Service Level Guarantees should be excluded for short term connections and agrees that it would undermine the take-up of such services. Accordingly, IDA directs OpenNet to delete clause 2.6(k) and propose, for IDA's approval, modifications to set out appropriate Service Level Guarantees for connections with a one-month contract term in Schedule 2 of the ICO. [ON 11 Apr 12 : Amended as per IDA's Direction.]

2.7 If the Requesting Licensee disputes OpenNet's reason for rejection, its records and/or the amount of rebate, the Requesting Licensee shall not be entitled to be credited with any rebate until and unless the dispute has been resolved.

2.8 A failure by OpenNet to meet any Service Level Guarantee does not constitute a breach of the ICO Agreement or this Schedule.

2.9 The Requesting Licensee acknowledges that the relevant remedy provided under clause 2.1 is a genuine pre-estimate of the Requesting Licensee's loss and will be the sole and exclusive remedy available to the Requesting Licensee for such failure to meet the relevant Service Level Guarantees for the Non-Residential End-User Connection and shall be OpenNet's sole and exclusive liability to the Requesting Licensee for such failure.

3. SERVICE DESCRIPTION AND ACCESS POINTS

3.1 (A) Where the Requesting Licensee requests for Non-Residential End-User Connection for the purpose of providing GPON services to the End-User, OpenNet will provide a licence for Non-Residential End-User Connection of 1:16 Split Ratio to the Requesting Licensee with the following:

- (a) one (1) fibre strand from OpenNet's Fibre Distribution Frame (**FDF**) at the Central Office designated by OpenNet to OpenNet's splitter at the Building MDF Room for each group of sixteen (16) Non-Residential Premises (or portion thereof);
- (b) one (1) dedicated fibre strand from the splitter to the First Termination Point of the Non-Residential Premise (subject to clauses 6.3 and 6.4) or

otherwise to the FTTB Node of the Non-Residential Premise where OpenNet's network ends;

CLAUSE 3.1(A)(c) – MODIFICATION REQUIRED

~~(c) one (1) Patching Service at OpenNet's FDF at the Building MDF Room and the Requesting Licensee shall pay a Patching Charge in accordance with Schedule 15 (Charges); and~~

IDA Directed Modifications: IDA refers OpenNet to section 2 of the Explanatory Memorandum to this Direction. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 3.1(A)(c) in the manner specified therein. JON 11 Apr 12 : Amended as per IDA's Direction.

~~(d) where necessary, one (1) Patching Service at OpenNet's FDF in the Central Office will be provided and the Requesting Licensee shall pay a Patching Charge in accordance with Schedule 15 (Charges).~~

CLAUSE 3.1(A) – MODIFICATION REQUIRED

~~Unless reasonably considered necessary by OpenNet, OpenNet shall utilise at least 90% of the connections in each splitter assigned to the Requesting Licensee in each of the FDF in the MDF room before an additional splitter is provisioned for the Requesting Licensee in that MDF Room. Where it is obvious to OpenNet that there is a projected (i) increased demand by the Requesting Licensee for a particular locality is above normal eg. Where the Requesting Licensee has notified OpenNet of the Requesting Licensee's intention to carry out a promotion at a particular locality in advance such that OpenNet can provision the resources required or (ii) increase in consumer demand or (iii) delay in supply from the splitter's vendor. To facilitate OpenNet's consideration, Requesting Licensee shall provide to OpenNet its forecast in advance such that OpenNet can provision the resources required in time. OpenNet shall not be responsible for any delays in provisioning of service due to lack of splitters in the event the Requesting Licensee failed to provide its forecast in advance or provides inaccurate requirements.~~

IDA Directed Modifications: Comments were received that OpenNet should spell out the situations in which it will provision an additional splitter. To avoid dispute, in the interest of clarity and to ensure an efficient implementation of the ICO, IDA agrees that it would be reasonable to require OpenNet to do so. Accordingly, IDA directs

OpenNet to propose, for IDA's approval, modifications to clause 3.1(A) to clarify the conditions that would have to be fulfilled before OpenNet will consider it reasonably necessary to provision an additional splitter even though it has not utilised at least 90% of the existing splitter. ION 11 Apr 12 : Amended as per IDA's Direction.

3.1 (B) Where the Requesting Licensee requests for Non-Residential End-User Connection for the purpose of providing OE services to the End-User, OpenNet will provide a licence for Non-Residential End-User Connection of 1:16 Split Ratio to the Requesting Licensee with the following:

- (a) two (2) fibre strands from OpenNet's FDF at the Central Office designated by OpenNet to OpenNet's FDF at the Building MDF Room for each group of thirty two (32) Non-Residential Premises (or portion thereof);
- (b) one (1) dedicated fibre strand from OpenNet's FDF at the Building MDF Room to the First Termination Point of the Non-Residential Premise (subject to clauses 6.3 and 6.4) or otherwise to the FTTB Node of the Non-Residential Premise where OpenNet's network ends; and
- (c) where necessary, up to three (3) Patching Services at OpenNet's FDF in the Building MDF Room; and
- (d) where necessary, two (2) Patching Services at OpenNet's FDF in the Central Office will be provided and the Requesting Licensee shall pay a Patching Charge in accordance with Schedule 15 (Charges).

3.2 For a Non-Residential End-User Connection of 1:1 Split Ratio to the End-User, OpenNet will not provide any splitter at the Building MDF Room. OpenNet will provide:

- (a) one (1) dedicated fibre strand from OpenNet's FDF at the Central Office designated by OpenNet to OpenNet's FDF at the Building MDF Room;
- (b) one (1) dedicated fibre strand from OpenNet's FDF at the Building MDF Room to the First Termination Point of the Non-Residential Premise (subject to clauses 6.3 and 6.4) or otherwise to the FTTB Node of the Non-Residential Premise where OpenNet's network ends;
- (c) one (1) Patching Service at OpenNet's FDF in the Building MDF Room; and

- (d) one (1) Patching Service at OpenNet's FDF in the Central Office and the Requesting Licensee shall pay a Patching Charge in accordance with Schedule 15 (Charges).

3.3 Where the Requesting Licensee elects to use the building owner's in-building cabling within the building and Patching Service, in addition to those already provided in clause 3.1 or 3.2 (as the case may be), is required to connect OpenNet's network to the building owner's in-building cabling, the Requesting Licensee may acquire the additional Patching Service in accordance with Schedule 13 (Patching Service). For the avoidance of doubt, it shall be the Requesting Licensee's sole responsibility to obtain permission from the building owner/management to install the in-building cabling or to use the existing building owner's in-building cable for the purposes aforesaid.

3.4 (A) Where the Requesting Licensee requests for Non-Residential End-User Connection of 1:16 Split Ratio for the purpose of providing GPON services to the End-User or Non-Residential End-User Connection of 1:1 Split Ratio, the Requesting Licensee shall access the Non-Residential End-User Connection:

- (a) at OpenNet's FDF at the Central Office designated by OpenNet or the Requesting Licensee's FDF at the Central Office designated by OpenNet; and
- (b) at the First Termination Point of the Non-Residential Premise (subject to clauses 6.3 and 6.4) or otherwise at the FTTB Node of the Non-Residential Premise where OpenNet's network ends.

3.4 (B) Where the Requesting Licensee requests for Non-Residential End-User Connection of 1:16 Split Ratio for the purpose of providing OE services to the End-User, the Requesting Licensee shall access the Non-Residential End-User Connection at:

- (a) OpenNet's FDF at the Central Office designated by OpenNet or the Requesting Licensee's FDF at the Central Office designated by OpenNet;
- (b) OpenNet's FDF at the Building MDF Room; and
- (c) the First Termination Point of the Non-Residential Premise (subject to clauses 6.3 and 6.4) or otherwise at the FTTB Node of the Non-Residential Premise where OpenNet's network ends.

3.56 Where the Requesting Licensee wishes to acquire subsequent fibre connection from the Central Office to the Building MDF Room, the Requesting Licensee shall acquire such fibre connection pursuant to Schedule 5 (CO to Building MDF Room Connection).

3.67 Where the Requesting Licensee acquires a Non-Residential End-User Connection of 1:16 Split Ratio for the purpose of providing OE services to the End-User, the Requesting Licensee shall ensure the Non-Residential End-User Connection is connected to active Optical Ethernet equipment.

CLAUSE 4 – MODIFICATION REQUIRED

4. ORDERING AND PROVISIONING PROCEDURE

IDA Directed Modifications: IDA refers OpenNet to section 7 of the Explanatory Memorandum to this Direction. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to clause 4 in the manner specified therein. Without limitation to the above, OpenNet should propose a process to assist the industry, in a timely manner, to ascertain whether a particular premise should be considered a residential premise or a non-residential premise, similar to the process proposed by OpenNet to assist the industry in determining whether a particular location should be considered a non-residential premise or an NBAP. In the process, OpenNet should also address what the parties should do if they cannot agree to the classification. In IDA’s opinion, the parties should follow the dispute resolution process in the ICO but with a shorter timeframe as the item under dispute is not complex. OpenNet should further propose a process to allow an requesting licensee to provide evidence of a change in usage of a particular premise, following which OpenNet would change the classification of the premise accordingly.

CLAUSE 4.1 – MODIFICATION REQUIRED

~~4.1 The Requesting Licensee shall, prior to submitting its request for Non Residential End-User Connection, confirm that the requested location is a Non Residential Premise (and not a NBAP). The Requesting Licensee shall first refer to the classification guidelines which are published on the Service Portal before submitting its clarification request to OpenNet.~~

IDA Directed Modifications: For clarity, IDA considers that the term “Service Portal” should be defined and set out in schedule 18 of the ICO.

IDA is of the view that Requesting Licensee should only need to confirm that the requested location is a non-residential premise (and not a NBAP) only if it is in doubt and not for every request. In this regard, OpenNet should amend its clause to reflect the above.

Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to the ICO to incorporate IDA’s requirements. JON 11 Apr 12 : ON proposed to delete clauses 4.1 and 4.2 entirely. The proposed modifications as directed by IDA would be addressed under new clause 4.1.]

CLAUSE 4.2 – MODIFICATION REQUIRED

~~4.2 — The Requesting Licensee may submit its clarification request to OpenNet by email to nbapenquiry@opennet.com.sg if it is not able to ascertain the classification of a particular location. The Requesting Licensee shall submit photographs of the location and termination point’s proposed location together with its clarification request. OpenNet will respond to the Requesting Licensee within two (2) Business Days of receipt of such request.~~

IDA Directed Modifications: Comments were received that OpenNet has essentially established itself as the party that defines property classifications. One industry respondent commented that OpenNet tends to take a long time in its consideration of such cases, and tends to classify properties such that it results in the highest charges. Therefore, it would be inappropriate for OpenNet to act as arbiter of property classifications. Rather, IDA would be more suitable for this role.

One of IDA’s guiding principles is to ensure as efficient a process as possible for both OpenNet and the industry in the implementation of the ICO. In this respect, as the notification of classification of properties is an operational matter, IDA considers that it would be more efficient for OpenNet to perform this task. Should there be any disagreement, the parties have the ability to raise the matter to IDA for resolution. In this regard, OpenNet is not the final arbiter of property classification. In IDA’s opinion, such a resolution process should be similar to the resolution process under the ICO but with a shorter timeframe as the item under dispute is not complex.

Comments were also received that OpenNet's obligation under clause 4.2 is limited to responding to the Requesting Licensee within 2 Business Days. Such a response could be simply an acknowledgement of the Requesting Licensee's Request, and as such there are no assurances that OpenNet will address such cases in a timely and responsive manner.

IDA agrees that it would be beneficial to require OpenNet to provide the classification of a particular location to the Requesting Licensee within 2 Business Days from date of receipt of such query.

Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 4.2 and other clauses in the ICO to: (a) propose a process which should be similar to the resolution process under the ICO but with a shorter timeframe to resolve dispute over classification between Non-Residential Premise and NBAP; and (b) clarify that OpenNet would provide the classification of a particular location to the Requesting Licensee within 2 Business Days from date of receipt of such query. [ON 11 Apr 12 : ON proposed to delete clauses 4.1 and 4.2 entirely. The proposed modifications as directed by IDA would be addressed under new clause 4.1. ON had not proposed a shorter timeframe for the dispute resolution process as the timeframes for Mediation (to be conducted in accordance to Mediation Rules of the SMC) and Arbitration (to be conducted in accordance to Arbitration rules of SIAC) processes are fixed and cannot be changed. Any unilateral change of the timeframes for Mediation and Arbitration will entitle a party to claim breach of natural justice. Under the proposed new clause 4.1, the dispute in property classification will not arise so long the RL is able to provide the supporting document proof as evidence for change of usage of classification. Nonetheless, ON will use its best endeavours to resolve the dispute with the RL within the current timeframe of within 20 business days under the Inter-Working group.]

CLAUSE 4.3 – MODIFICATION REQUIRED

~~4.1 4.3~~—The Requesting Licensee shall submit its request for Non-Residential End-User Connection (**Request**) to OpenNet on a Business Day in the form of Annex 2A stating, but not limited to the following information:

- (a) the End-User's name, telephone number and installation address of the Non-Residential Premise where the Termination Point is to be installed;
- (b) the Split Ratio required; and

CLAUSE 4.3(c) – MODIFICATION REQUIRED

- (c) whether the Requesting Licensee requires OpenNet to install the in-building enclosure, ducting and cabling. OpenNet will install cable tray(s) where required.

IDA Directed Modifications: IDA has reviewed OpenNet's proposed changes to clause 4.3(c) and notes that it is contrary to OpenNet's earlier position that it would install the cable tray where required. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to reflect that OpenNet will construct the cable tray where required. [ON 11 Apr 12 : Amended as per IDA's Direction.

- (d) the term of the licence required, either one (1) month or twelve (12) months

Some locations within a Non-Residential building is classified by OpenNet as an NBAP instead of a Non-Residential End-User Premise. If in doubt whether a requested location is eligible for a Non-Residential Connection request, the Requesting Licensee can refer to the classification guidelines which are published on OpenNet's Public Website. If there are further doubts, Requesting Licensee may submit its request to OpenNet via the OpenNet Public Website →NBAP enquiry tool with photographs of the location and Termination Point's proposed location. OpenNet will respond to the Requesting Licensee on the classification of a particular location within two (2) Business Days of receipt of such query subject to a maximum of 10 queries daily from all Requesting Licensees. If Requesting Licensee disputes on OpenNet's decision on classification of the premise, the Requesting Licensee may raise a dispute in accordance to the Dispute Resolution process as set out in Schedule 17.

The Requesting Licensee shall submit its Request for Non-Residential End-User Connection (**Request**) to OpenNet via the OpenNet Platform stating, but not limited to the following information:

(a) the End-User's name, telephone number and installation address of the Non-Residential Premise where the Termination Point is to be installed;

(b) the Split Ratio required; and

(c) whether the Requesting Licensee requires OpenNet to install the in-building enclosure, ducting and cabling.

For Request submitted via the Service Portal, the Requesting Licensee shall submit a feasibility check for the End-User's address to verify the coverage status, the Requesting Licensee shall select an available date and appointment time for activation. Upon successful submission of the Request via the Service Portal, it will provide a Request acknowledgement.

For Request submitted via the OpenNet Platform APIs, the Requesting Licensee shall perform the feasibility check for verifying the coverage status by supplying the postal code of the End-User where applicable. The Requesting Licensee shall also query the available time slots for that particular End-User's address. The Requesting Licensee shall use the address details returned by OpenNet and the applicable timeslot related to the status of the feasibility check for submission of the Request. Upon successful submission of the Request via the OpenNet Platform APIs, it will provide a Request acknowledgement.

For Request submitted via the OpenNet Platform, Requesting Licensee is able to modify the contact details of End-User and additional two (2) contact persons subject that the date of modification is more than ten (10) Business Days before the requested service activation date. The OpenNet Platform will notify the Requesting Licensee if the contact details have been successfully modified. If the Requesting Licensee mistakenly entered mailing address instead of the installation address, and the installation address is in the same building as the mailing address belonging to the same End-User, the Requesting Licensee must amend to the correct installation address after completion of the site survey failing which, OpenNet will reject the Request. On the other hand, where the mailing address and installation address are in different buildings, OpenNet may reject the order.

IDA Directed Modifications: Comments were received that it is common for Non-Residential End-Users to occupy more than one unit in a building, and therefore so long as the final designated point for the Termination Point is within the premises occupied by the End-User, OpenNet should not reject the order as a wrong address if the Termination Point is technically within the confines of an adjoining legal

address. An example would be an End-User whose office spanned units #02-03 to #02-05. The End-User is likely to fill in one of the unit numbers as its address, and this is usually its mailing address. The respondent submitted that during the Site Survey, it should not be open to OpenNet to reject the order if the Server Room to which the End-User wants the Termination Point provisioned is technically in unit #02-05 while the address provided to OpenNet is #02-03.

IDA is of the view that the onus should be on the Requesting Licensee to ensure that the address submitted to OpenNet corresponds to the installation address (e.g., the actual location of the Server Room) rather than the mailing address. Nevertheless, IDA agrees that OpenNet should not reject an application for the above situation but provide such flexibility to allow the Requesting Licensee to amend the order accordingly.

OpenNet should also propose a process to allow Requesting Licensees to update the contact details of the End-Users and cater for additional contact persons.

IDA refers OpenNet to section 10 of the Explanatory Memorandum to this Direction. Without limitation to the requirements therein, OpenNet should update its ICO to reflect that it has launched its Platform and commenced B2B transactions, and orders are processed through such means.

Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 4.3 to: (a) clarify that the address to be submitted should corresponds to the installation address rather than the mailing address; (b) allow Requesting Licensee to amend the order for the scenario raised above so long as the premises are owned by the same End-User and are within the same building; (c) allow Requesting Licensees to update the contact details of End-Users and cater for additional contact persons; and (d) update Schedule 2 to reflect that it has launched its Platform and commenced B2B transactions, and orders are processed through such means. [JON 11 Apr 12 : Amended as per IDA's Direction.](#)

CLAUSE 4.4 – MODIFICATION REQUIRED

4.4 Relocation of the Non-Residential End-User Connection is allowed. The Requesting Licensee may submit a request with the relevant ORI via the OpenNet Platform when available to relocate the Termination Point within the same Non-Residential Premise, subject to the follow terms and conditions:

IDA Directed Modifications: IDA notes the following comments that were made:

(a) OpenNet should allow the relocation request to be submitted in the same request as a new order and OpenNet should allow the Requesting Licensee to indicate via B2B and Portal: (i) that Termination Point relocation is required; and (ii) additional details related to the relocation;

(b) prior to installation, OpenNet should allow the Requesting Licensee to revise the order to request for Termination Point relocation or cancel the Termination Point relocation without impacting the original Request for Service date; and

(c) OpenNet should deal with fibre-related issues in End-User premises directly with the End-Users, as this would ensure efficiency and a better End-User experience.

After careful consideration, IDA is of the view that it may be overly prescriptive on IDA's part to dictate how the relocation process should be performed by OpenNet. That said, IDA agrees that at a minimum, relocation request could be requested from the Platform and via B2B transactions. With regard to (c), IDA refers the industry to section 6 of the Explanatory Memorandum to this Direction. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 4.4 to clarify that such relocation request could be minimally requested from the Platform and via B2B transactions. [ON 11 Apr 12 : Amended as per IDA's Direction.]

CLAUSE 4.4(a) – MODIFICATION REQUIRED

(a) The Requesting Licensee hereby acknowledges and agrees that OpenNet shall not be held liable if despite of its best endeavours, there is any delay caused by any obstruction from the building owner, building management, home owner or End-User during the relocation or any of the circumstances

described in Clauses 2.6(e) and 2.6(f) above; or if there is any damage or repainting works required;

IDA Directed Modifications: IDA refers OpenNet to its directed modifications to clauses 2.6(e) and 2.6(f). The industry is generally of the view that OpenNet must use its best endeavour to resolve the obstruction before it could rely on such clause to relieve itself of its obligation to provision the said service within the stipulated timeframe. IDA agrees that the above expectation is reasonable. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to 4.4 (a) to comply with the above. [ON 11 Apr 12 : Amended as per IDA's Direction.]

(b) Subject to Clauses 5.2, 5.3(b) and 5.3(d), OpenNet shall provide the relocation service by the end of three (3) Business Days from the receipt of a valid Request from the Requesting Licensee;

(c) The Requesting Licensee will have to bear the charge for installation of the relocated Termination Point in accordance to Schedule 15 (Charges); and

~~(a)(d)~~ The cancellation charge as set out in accordance to Schedule 15 (Charges) shall be applicable should the Requesting Licensee cancel the relocation Request after acceptance by OpenNet.

(e) The Requesting Licensee may also submit its Request for Relocation of the TP via OpenNet Platform.

4.5 Where a premise was classified as a Residential Premise during the rollout of the NGNBN but has since undergone a change of premise type or the End-User claims the premise as a Non-Residential Premise, Requesting Licensee shall obtain from the End-User and keep a record of the necessary documentary evidence as proof of such change of premise type for verification by OpenNet. Such documentary evidence must consist of one or more of the following dated within the last three (3) months from the date of Request submitted in the End-User's name :

(a) Telecommunication / Internet bill;

(b) Service and Conservancy bill from town council ;

(c) Utilities bill from Singapore Power;

(d) Cable TV bill;

(e) Tenancy agreement for residence;

(f) Change of address as indicated on the National Registration Identity Card (NRIC).

For such cases, Requesting Licensee can request for reclassification of premise via the OpenNet Platform, when available. The Requesting Licensee will be informed via OpenNet Platform once the reclassification is successful. Upon receiving the notification of a successful reclassification, the Requesting Licensee shall then submit the Request for Non-Residential End-User Connection via the OpenNet Platform.

If the Request is accepted, OpenNet will provision the Non-Residential End-User Connection based on 1:24 split ratio in ten (10) Business Days or the preferred installation date which the Requesting Licensee have requested for, whichever is earlier.

The Standard Installation Charge in Schedule 15 shall apply and if a Termination Point installation is required, the Installation of Network charge in Schedule 15 shall apply accordingly.

At all times, it shall be the responsibility and obligation of the Requesting Licensee to satisfy itself and obtain from the End-User sufficient documentary evidence of such change in premise. In the event upon OpenNet's verification there are insufficient evidence to support the change in premise type to a Non-Residential Premise, OpenNet reserves the right to maintain or re-classify the premise type as a Residential Premise and bill the Requesting Licensee all one time charges and monthly recurring charge applicable to a Non-Residential End-User Connection as per Schedule 15 (Charges) retrospectively. If Requesting Licensee disputes OpenNet's decision to classify the premise as a Residential Premise, the Requesting Licensee may raise a dispute in accordance to the Dispute Resolution process as set out in Schedule 17. However, a reference of such dispute for the Dispute Resolution process as set out in Schedule 17 shall not suspend or entitle the Requesting Licensee from withholding any payment or payment of any charges, partially or in whole, as billed or invoiced by OpenNet. Where OpenNet's decision is reversed or modified upon conclusion of the Dispute Resolution, OpenNet shall rebate to the Requesting Licensee such sums associated with the decision reversed or modified without interest.

CLAUSE 4.5 – MODIFICATION REQUIRED

4.65 For the avoidance of doubt, ~~change of use switching~~ from GPON to OE or from OE to GPON is allowed via the OpenNet Platform subject to the Requesting Licensee paying the applicable charges for Patching Service in accordance to Schedule 15 (Charges). OpenNet will provide a unique reference number or a similar form of identification in the notification upon successful submission of a GPON to OE or from OE to GPON Request.

For the switching from GPON to OE or from OE to GPON, the Requesting Licensee shall perform a check order status by providing, but not limiting to the unique reference number provided by OpenNet for the existing connection, before submitting its request for the switch. For avoidance of doubt, switching from GPON to OE or vice versa is only applicable for connections that are active.

Information of the estimated timeframe for the switch will be provided to the Requesting Licensee through OpenNet's platform during the switch.

The Requesting Licensee may approach OpenNet for specific requirements to the switching process, which will be on a Cost-Oriented Basis.

IDA Directed Modifications: In the interests of clarity and to promote certainty amongst the industry, IDA considers that there is merit in requiring OpenNet to specify further details on the ordering and provisioning process as well as timeframe for the change of use from GPON to OE and from OE to GPON. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 4.5 incorporate the above requirements. [ON 11 Apr 12 : Amended as per IDA's Direction.]

CLAUSE 4.6 – MODIFICATION REQUIRED

4.76 Where the Requesting Licensee has not requested OpenNet to install the in-building enclosure, ducting and cabling (under clauses 6.3 and 6.4) OpenNet will install cable tray(s) as required at the time it acquires the Non-Residential End-User Connection and wishes to request the installation of the in-building enclosure, ducting, cabling and cable tray at a later date, it may submit a new Request in accordance with clause 4.1. For the avoidance of doubt, the Requesting Licensee would not be liable for premature termination charges (under clause 8.2) for the existing Non-Residential End-User Connection.

IDA Directed Modifications: IDA has reviewed OpenNet's proposed changes to clause 4.6 and notes that it is contrary to OpenNet's earlier position that it would install the cable tray where required. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to reflect that OpenNet will construct the cable tray where required. [ON 11 Apr 12 : Amended as per IDA's Direction.]

CLAUSE 4.7 – MODIFICATION REQUIRED

4.87 OpenNet shall at its sole discretion determine the serving CO and Building MDF Room from which the Non-Residential End-User Connection will be provided. Subject to clause 4.8, the Requesting Licensee is able to query the OpenNet Platform at no cost for the serving CO and Building MDF by providing the postal code for the End-User address.

IDA Directed Modifications: Comments were received that OpenNet should provide the Mandated Services information for the serving CO and Building MDF as part of the feasibility check for an address. The respondent noted that there should be one servicing CO and building MDF provided per address, and the information provided should be accurate for the provisioning of services.

After careful consideration, IDA agrees with the above suggestions. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this Schedule to provide for a process for Requesting Licensees to request for the above information. As such information will be necessary for OE deployment, IDA's position is that such information should be readily made available and at no cost. [ON 11 Apr 12 : Amended as per IDA's Direction.]

CLAUSE 4.8 – MODIFICATION REQUIRED

4.98 ~~Initially, I~~ information relating to the Mandated Services will be available on OpenNet's Platform website, for access by the Requesting Licensee through secured means. The secured access to OpenNet's Service Portal website will require the payment of a Per User Account Charge (specified in clause 14 of Schedule 15 (Charges)) for each user account created. ~~Initially, I~~ information relating to network outages will be sent to the Requesting Licensee via email or OpenNet Platform. The information relating to the Mandated Services and the information relating to network outages ~~is shall be~~ made available on the OpenNet Platform. ~~in due course~~. For the avoidance of doubt, such Per User Account Charge shall not be re-imposed when the

information relating to Mandated Services is made available on the OpenNet Platform.

OpenNet shall include the following details in the written notification or via OpenNet Platform APIs to the Requesting Licensee:

(a) Affected location;

(b) Date of occurrence;

(c) Time of occurrence (start & approximate end timings);

(d) Cause of outage;

(e) Steps taken to remedy the outage;

(f) Steps (if any) required by Requesting Licensee to assist with rectification of outage;

(g) Order Request Identifier of the affected orders; and

(h) OpenNet's Network Operations Centre Contact Number.

IDA Directed Modifications: Comments were received that while this clause 4.8 provides that network outage information will be made available on OpenNet's website and Platform, there are no details on the types of information provided. The respondent highlighted that network outage information is critical for Requesting Licensees to monitor and manage their services and networks, and suggested that OpenNet make the following types of information available:

(a) start time of the outage;

(b) length of time for which outage is expected to continue;

(c) services affected by the outage;

(d) steps taken to remedy the outage; and

(e) steps (if any) Requesting Licensee may be required to take to assist with rectification of outage.

After careful consideration, IDA agrees that it would be reasonable to require OpenNet to provide, at a minimum, the information enumerated above to Requesting Licensees in relation to network outages. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to incorporate the above requirement.

IDA also refers OpenNet to section 10 of the Explanatory Memorandum to this Direction. IDA directs OpenNet to propose, for IDA's approval, modifications to clause 4.8 as specified therein. Without limitation to the foregoing, OpenNet should update clause 4.8 to reflect that OpenNet has launched its Platform, commenced B2B transactions and that orders are processed through such means. OpenNet should also reflect that Mandated Services information shall be provided over the Platform and via B2B transactions. JON 11 Apr 12 : Amended as per IDA's Direction.

5. NON-RESIDENTIAL END-USER CONNECTION REQUEST

- 5.1 OpenNet shall process all Requests received for Non-Residential End-User Connection on a 'first come, first served' basis.

CLAUSE 5.2 – MODIFICATION REQUIRED

Version 1 :

- 5.2 For each Business Day, OpenNet shall process a combined total of no more than ~~500480~~ Requests for Basic Mandated Services and Layer 1 Redundancy Services (**Maximum Quota**) from all Requesting Licensees, ~~and in any single week, OpenNet will not process more than 2,400 Requests for Basic Mandated Services and Layer 1 Redundancy Services from all Requesting Licensees.~~ For avoidance of doubt, Requesting Licensee is able to select such dates made available from the OpenNet Platform and for which the Request is to be fulfilled except such Business Day where the Maximum Quota has been reached. OpenNet will process all Requests on a 'first come, first served' basis. The Maximum Quota is not applicable to requests for deactivation of any Connection.

- (i) If OpenNet finds that more than 95% of the quota has been used consistently over a period of twelve (12) weeks preceding the review month (namely January, April, July and September), OpenNet shall increase its daily quota for the quarter in which the review month occurs. If OpenNet finds that less than 80% of the quota has been used consistently over a period of twelve (12) weeks preceding the review month (namely January, April, July and

September), OpenNet shall decrease its daily quota for the quarter in which the review month occurs. The review mechanism will be revised regularly subjected to the Authority's approval. To ensure better capacity planning, the Requesting Licensee will be required to provide within the first week of the current quarter, a 4-quarter rolling forecast with monthly breakdown for the coming quarter. E.g The Requesting Licensee will provide in 1st week of January 2013 the forecast for April to June 2013.

- (ii) For seasonal increase in demand during quarterly major fairs (namely IT Show in March, PC Show in June, Comex Show in September and SITEX in November), the Maximum Quota shall be supplement by Seasonal Slots (temporary increase of installation slots in excess of the Maximum Quota) and for which a sub-quota for Non-Residential Premise installation will be established. The Seasonal Slots, including the sub-quota, shall be subjected to such terms and conditions stated in the Seasonal Slots Notification.

Version 2 :

5.2 For each Business Day, OpenNet shall process a combined total of no more than 655 Requests for Basic Mandated Services and Layer 1 Redundancy Services (Maximum Quota) from all Requesting Licensees. For avoidance of doubt, Requesting Licensee is able to select such dates made available from the OpenNet Platform and for which the Request is to be fulfilled except such Business Day where the Maximum Quota has been reached. OpenNet will process all Requests on a 'first come, first served' basis. The Maximum Quota is not applicable to requests for deactivation of any Connection.

The Maximum Quota will be allocated in the following manner according to the type of work to be performed,

- (i) Schedule 1 High-rise Residential Premise installation, repair/replacement,removal, re-location (within the same premise and to another premise) and 2nd port activation of 1st TP and 2nd TP i.e 170 installation slots per business day which are distributed across 4 time-slots within the business day
- (ii) Schedule 1 Landed Residential Premise installation, repair/replacement, removal, re-location (within the same premise and to another premise) and 2nd port activation of 1st TP and 2nd TP i.e 15 installation slots per business day which are distributed across 2 time-slots within the business day

- (iii) Schedule 2 Non-Residential Premise installation, repair/replacement, removal, re-location (within the same premise and to another premise) and 2nd port activation of 1st TP and 2nd TP i.e 40 installation slots per business day which are distributed across the time-slots within the business day
- (iv) Schedule 3 NBAP installation, removal and 2nd port activation of 1st TP i.e 5 installation slots per business day
- (v) Express Service activation i.e. 40 per Business Days
- (vi) All unused quota shall be used for Requests that only require patching service in the CO and MDF to activate the connection.

<u>Type of Work</u>	<u>Installation Slots Per Business Day</u>
<u>Schedule 1 High-rise Residential Premise</u>	<u>170</u>
<u>Schedule 1 Landed Residential Premise installation</u>	<u>15</u>
<u>Schedule 2 Non-Residential Premise installation</u>	<u>40</u>
<u>Schedule 3 NBAP</u>	<u>5</u>
<u>Express Service Patching</u>	<u>40</u>
<u>Unused Quota</u>	<u>≤ 655</u>

- (i) If OpenNet finds that more than 95% of the quota has been used consistently over a period of twelve (12) weeks preceding the review month (namely January, April, July and September), OpenNet shall increase its daily quota for the quarter in which the review month occurs. If OpenNet finds that less than 80% of the quota has been used consistently over a period of twelve (12) weeks preceding the review month (namely January, April, July and September), OpenNet shall decrease its daily quota within the quarter in which the review month occurs. The review mechanism will be revised

regularly subjected to the Authority's approval. To ensure better capacity planning, the Requesting Licensee will be required to provide within the first week of the current quarter, a 4-quarter rolling forecast with monthly breakdown for the coming quarter. E.g The Requesting Licensee will provide in 1st week of January 2013 the forecast for April to June 2013.

(ii) For seasonal increase in demand during quarterly major fairs (namely IT Show in March, PC Show in June, Comex Show in September and SITEX in November), Maximum Quota shall be supplement by Seasonal Slots (temporary increase of installation slots in excess of the Maximum Quota). The Seasonal Slots shall be subjected to the terms and conditions stated in the Seasonal Slots Notification.

IDA Directed Modifications: IDA refers OpenNet to section 1 of the Explanatory Memorandum to this Direction. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 5.2 in the manner specified therein. [ON 11 Apr 12 : ON is proposing 2 versions. Please refer to cover letter for the justifications.]

CLAUSES 5.3(a) – (c) – MODIFICATION REQUIRED

5.3 Within one (1) Business Day of the date on which OpenNet receives the request for Non-Residential End-User Connection (**Request Date**) and subject to clause 5.2, OpenNet must notify the Requesting Licensee (and shall provide the Requesting Licensee with a unique reference number or a similar form of identification in the notification) if its Request is rejected for any one of the following reasons:.

- (a) the Request for Non-Residential End-User Connection is not in the prescribed form;
- (b) the Request does not contain all the required information or the information provided is inaccurate or misleading;
- (c) the service activation date requested is less than ten (10) Business Days from the date of receipt of a Request;

Where OpenNet receives the request for Non-Residential End-User Connection (Request Date) via the OpenNet Platform, OpenNet will validate and notify the Requesting Licensee, so that the Requesting Licensee is able to make the necessary corrections if the request does not meet one of the following reasons:

- (a) Data entered for the fields does not meet the required format;
- (b) the Request does not contain all the required information or the information provided is inaccurate or misleading;
- (c) the service activation date requested is less than ten (10) Business Days from the date of receipt of a Request;

Within one (1) Business Day of the date on which OpenNet receives the request via the OpenNet Platform for Non-Residential End-User Connection (**Request Date**) and subject to clause 5.2, OpenNet must notify the Requesting Licensee (and shall provide the Requesting Licensee with a unique reference number or a similar form of identification in the notification) if its Request is rejected for any one of the following reasons:

- (a) the Requesting Licensee has committed a material breach of the ICO Agreement or this Schedule; or
- (b) where the first and second fibre of the First Termination Point are in use;
- (c) where the OpenNet Platform is experiencing technical problems.

IDA Directed Modifications: Comments were received that clauses 5.3(a)-(c) should not apply in the case of B2B orders. Instead, the “errors” described in these clauses should be checked in real-time and feedback provided immediately so that corrections can be made on the spot.

After careful consideration, IDA agrees that doing so would result in a more efficient service provisioning. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to clauses 5.3(a)-(c) to give effect to the above.

IDA further refers OpenNet to section 10 of the Explanatory Memorandum to this Direction. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, the necessary modifications to give effect to the directed modifications set out therein. Without limitation to the foregoing, OpenNet should update clauses 5.3(a)-(c) to reflect that OpenNet has launched its Platform, commenced B2B transactions and that orders are processed through such means. JON Comments 11 Apr 12 : The term “real-time” is a subjective and abstract expression. It

serves to confuse and give rise to misunderstanding. Hence, ON's proposed modifications did not include this term.]

- (d) the Requesting Licensee has committed a material breach of the ICO Agreement or this Schedule; or

CLAUSE 5.3(e) – MODIFICATION REQUIRED

(e) where the first and second fibre of the First Termination Point are in use. In such a situation, OpenNet will offer to install a Second Termination Point as per charges stated in Schedule 15.

IDA Directed Modifications: Comments were received that given OpenNet's position as the NetCo of the Next Gen NGN in a multi-OpCo environment, OpenNet should be required to provide a connection when requested, and not be allowed to reject requests on the basis that the First Termination Point is not available. It was further noted that, as currently drafted, clause 5.3(e) is ambiguous as it is not clear whether OpenNet has any obligation to fulfil the Request if the First Termination Point is not available.

After careful consideration, IDA considers that OpenNet should: (a) be required to provision an additional Termination Point if the First Termination Point have been used; and (b) inform Requesting Licensees of the relevant charges for the additional Termination Point at the time of order by the Requesting Licensee. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 5.3(e) to incorporate the above requirements. JON 11 Apr 12 : Amended as per IDA's Direction.

CLAUSE 5.4 – MODIFICATION REQUIRED

- 5.4 Within ten (10) Business Days of the Request Date and subject to clause 5.2, OpenNet must notify the Requesting Licensee (and shall provide the Requesting Licensee with a unique reference number or a similar form of identification in the notification) whether its Request is accepted, or if rejected, for any one of the following reasons, except where there is insufficient capacity, OpenNet must also notify the Requesting Licensee within ten (10) Business Days of the Request Date that there is insufficient capacity and the timeframe to notify the acceptance or

rejection of the Request shall be extended to within ten (10) or forty (40) Business Days of the Request Date:

IDA Directed Modifications: IDA refers OpenNet to its directed modifications to clause 5.5. Accordingly, IDA directs OpenNet to propose, for IDA's approval, any consequential modifications to clause 5.4 to comply with the above. [ON 11 Apr 12 : There are no consequential modifications to be made to clause 5.4 as it is covered under clause 5.5]

- (a) the equipment or services that the Requesting Licensee proposes to use or to provide interfere with, or cause deterioration to services supplied by OpenNet;

CLAUSE 5.4(b) – MODIFICATION REQUIRED

- (b) there is obstruction from building owner, building management, home owner or End-User to OpenNet installation or installation schedule including any breach by building owner, building management, home owner or End-User of applicable regulatory requirements including for example COPIF. OpenNet shall use its best endeavours to resolve such obstructions and where applicable, OpenNet shall refer any breaches of regulatory requirements to the Authority for the Authority's action and follow up;

IDA Directed Modifications: IDA received a number of comments on this clause:

(a) An industry respondent commented that it should be for IDA to decide if there is any obstruction or regulatory breach, and that by its proposed amendments, OpenNet is effectively arrogating to itself the power to make a regulatory determination, which cannot be allowed.

(b) Another industry respondent observed that OpenNet's proposed amendments potentially widens OpenNet's ability to delay notifying Requesting Licensees of the order status. This delay will translate into greater uncertainty and prolonged waiting times for customers. The respondent therefore submitted that it is necessary for this clause to be amended so that:

- (i) OpenNet must demonstrate that it has exhausted its efforts in attempting to resolve the obstruction with the building**

owner / building management / customer before rejecting a request; and

- (ii) IDA and not OpenNet should determine whether the building management or customer has breached any regulatory requirements, and should therefore be denied service.**

IDA has considered the comments carefully.

In respect of (a), IDA considers that OpenNet's proposed amendments should be removed as any breaches of regulatory requirements should be left to IDA to enforce, and should not be used as a reason for rejection.

In respect of (b), IDA considers that it would be reasonable to require OpenNet to use its best endeavours to resolve the issue with the relevant party before declaring that there is an obstruction.

Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 5.4(b) to give effect to the above. ON's Comments 11 Apr 12 : ON should be entitled to rely on regulatory breaches as an obstruction as otherwise would render such regulatory requirements nugatory. To remove reference to regulatory breaches leaves ON with an impossible situation of complying with its obligations when the other relevant parties do not perform their obligations under the law. However, ON recognise IDA's concerns and will, where applicable (ie. In cases of breaches of regulatory requirements) refer such cases to IDA for its action and followup.

- (c) the Transmission Tie Cable (installed pursuant to Co-location Service in Schedule 12) for connection to the Non-Residential End-User Connection is yet to be operational at the point in time of OpenNet's provisioning of the Non-Residential End-User Connection;

CLAUSE 5.4(d) – MODIFICATION REQUIRED

- (d) OpenNet has not rolled out its Network to the Non-Residential Building and as at the date such Request is received, OpenNet was not required to roll out its Network to such location under the terms of OpenNet's FBO License; or**

IDA Directed Modifications: An industry respondent commented that OpenNet should not be allowed to reject a Request if it failed to roll out its Network due to its own default.

After careful consideration, IDA agrees that the suggestion above is reasonable as the Requesting Licensee should not be penalised for OpenNet's default. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to incorporate this suggestion. For example, to satisfy this requirement, the following line could be added immediately at the end of clause 5.4(d): "and as at the date such Request is processed, OpenNet was not required to roll out its Network to such location under the terms of OpenNet's FBO Licence." [ON 11 Apr 12 : Amended as per IDA's Direction.]

- (e) there are security and confidentiality requirements or restrictions imposed on OpenNet by Government Agencies.

CLAUSE 5.5 – MODIFICATION REQUIRED

5.5 If there is sufficient capacity to provide the Non-Residential End-User Connection pursuant to clause 6.1, OpenNet shall advise the Requesting Licensee within ten (10) Business Days whether the Non-Residential End-User Connection has been successfully set up. In the event that there is insufficient capacity to provide the Non-Residential End-User Connection pursuant to the Request due to sudden surge of orders in a short period of time at a location or multiple Requesting Licensees serving the same location giving rise to rapid exhaustion of resources for that location or OpenNets Network has not been rolled out to that location, clause 6.2 shall apply and OpenNet shall inform the Requesting Licensee accordingly within ten (10) Business Days and advise the Requesting Licensee that the RFS of the Non-Residential End-User Connection will be extended to at least ~~within either~~ ten (10) Business Days if there is insufficient capacity from FTTB Node of the Non-Residential End-User Connection to the Termination Point or forty (40) Business Days if there is insufficient capacity from CO to the Termination Point. ~~(as the case may be) whether the Non-Residential End-User Connection has been successfully set up.~~ Upon receipt of OpenNet's notification of insufficient capacity, the Requesting Licensee have an option to either select a new appointment date or cancel the Request without charges within one (1) Business Day, through OpenNet Platform, when available. The status of the Request shall be made available to the Requesting Licensee on the OpenNet Platform updated on a daily basis each time the status of the Request changes.

IDA Directed Modifications: IDA has received a number of comments in relation to the situation where OpenNet need to extend its SAP due to insufficient capacity:

(a) OpenNet should be made to confirm and clarify when the 10 Business Days or the 40 Business Days applies. Another respondent commented that OpenNet must provide reasons to the Requesting Licensee and justify why it needs to take the proposed number of days to fix the issue;

(b) when there is insufficient capacity, Requesting Licensees must have the option to re-select a new appointment date, or cancel the order. Since OpenNet is unable to fulfil the initial order, it is only fair that the Requesting Licensees be given the opportunity to seek concurrence with the Retail Service Providers/End Users, and not be subject to accepting any appointment date determined by OpenNet; and

(c) a respondent commented that should IDA allow such clauses to remain, then in such cases, OpenNet should allow Requesting Licensees to cancel the order, at no cost to Requesting Licensees.

IDA has carefully reviewed the comments and agrees that the process related to insufficient capacity has to be amended. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modification to clause 5.5 to include the following:

(a) clarification on when insufficient capacity would happen and how OpenNet would determine the applicable SAP; [\[ON 11 Apr 12 : Amended as per IDA's Direction.\]](#)

(b) in the event where OpenNet needs to extend the SAP due to insufficient capacity, OpenNet should inform Requesting Licensee on or before the 10th Business Days from the date of Request on the reason behind the extension and the applicable SAP (including the proposed new appointment date, if applicable). OpenNet would then provide Requesting Licensee with an opportunity to either:

(i) proceed with the order. In such situation, OpenNet should allow Requesting Licensee to proceed with the proposed appointment date or to select a new appointment date. OpenNet should also provide status update of the order (see section 9 of the Explanatory Memorandum to

this Direction, in relation to the timely status updates); or JON 11 Apr 12 : Amended as per IDA's Direction.

(ii) cancel the order without any cancellation charge. JON 11 Apr 12 : Amended as per IDA's Direction.

5.6 The Requesting Licensee shall pay OpenNet the applicable Installation Charge and Patching Charge specified in Schedule 15 (Charges) for provisioning the Non-Residential End-User Connection.

CLAUSE 5.7 – MODIFICATION REQUIRED

5.7 Where OpenNet rejects the Request for Non-Residential End-User Connection, OpenNet shall provide reasons explaining the basis for rejection promptly.

IDA Directed Modifications: Comments were received that the timeframe for accepting or rejecting a Request is inappropriate and overly lengthy.

IDA has considered the issue carefully and agrees that it would be reasonable to require OpenNet to promptly notify the Requesting Licensees of any rejection and explain the basis of such rejection. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 5.7 to incorporate the above requirements. JON 11 Apr 12 : Amended as per IDA's Direction.

5.8 Where it is subsequently determined by OpenNet that a valid Non-Residential End-User Connection Request submitted by the Requesting Licensee is for a Residential Premise (due to an error in Mandated Services Information which is caused solely by OpenNet, its contractors or suppliers), then OpenNet shall duly inform the Requesting Licensee of the nature of such error, and commence to deliver the service after the Requesting Licensee confirms that it wishes to proceed with the order; however, any charges imposed by OpenNet will follow the rates for a Residential End-User Connection (i.e. the entire Clause 1 of Schedule 15).

CLAUSE 5.9 – MODIFICATION REQUIRED

5.9 Where it is subsequently determined by OpenNet that a valid Non-Residential End-User Connection Request submitted by the Requesting Licensee is for a Non-

Residential Premise that is not a covered site (due to an error in Mandated Services Information which is caused solely by OpenNet, its contractors or suppliers), then OpenNet shall duly inform the Requesting Licensee of the nature of the error, and have the right to reject the Non-Residential End-User Connection Request; however OpenNet shall credit the Requesting Licensee with a one (1) month rebate of the Monthly Recurring Charge. For the avoidance of doubt, this clause 5.9 shall also be applicable to a rejection under clause 5.4(d) where such rejection is due to an error in Mandated Services Information which is caused solely by OpenNet, its contractors or suppliers as well as a rejection under clauses 5.4(b) or 5.4(e). The rebates, where applicable will be shown in the next Invoice.

IDA Directed Modifications: Comments were received that OpenNet should inform the Requesting Licensee where rebates are provided. IDA has considered the issue and agrees that it would only be reasonable that OpenNet make available such information to the Requesting Licensee. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 5.9 to incorporate the above requirements. [ON 11 Apr 12 : Amended as per IDA's Direction.]

5.10 For the avoidance of doubt:

- (a) where OpenNet discovers any error in the Mandated Services Information which is caused solely by OpenNet, its contractors or suppliers, OpenNet shall inform the Requesting Licensee of the error and the correct Mandated Services Information within one (1) Business Day of OpenNet's discovery of the error;
- (b) where OpenNet is informed of an error in the Mandated Services Information which is caused solely by OpenNet, its contractors or suppliers, OpenNet shall inform the Requesting Licensee of the error and the correct Mandated Services Information within three (3) Business Days of being informed of the error;
- (c) the timeframe to inform the Requesting Licensee of an error in the Mandated Services Information or the correct Mandated Services Information indicated under Clauses 5.10(a) and 5.10(b) shall exclude any delays caused by third parties such as building owners and/or management or end-user, who obstructs OpenNet during OpenNet's site survey or related checks;

CLAUSE 5.10(d) – MODIFICATION REQUIRED

- (d) where the Requesting Licensee wishes to cancel the Non-Residential End-User Connection Request due to the error in the Mandated Services Information which is caused solely by OpenNet, its contractors or suppliers, or to change any parameter in the Non-Residential End-User Connection Request for the same reason, OpenNet shall not require the Requesting Licensee to bear the Cancellation Charge specified in Schedule 15 (Charges) or any additional charges in relation to the cancellation or change in parameter(s). The Requesting Licensee shall submit the Cancellation Request due to the error in the Mandated Services Information via the OpenNet Platform, when available; and

IDA Directed Modifications: Comments were received that OpenNet's B2B interface should allow for cancellations as described in this clause 5.10(d), which is currently not the case. After careful consideration, IDA determines that it would result in a more efficient implementation of the ICO to require OpenNet to allow for such cancellations through its automated processes. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 5.10(d) to give effect to the requirement above.

- (e) where OpenNet fails to meet its Service Level Guarantees due to the error in Mandated Services Information which is caused solely by OpenNet, its contractors or suppliers, the Requesting Licensee is entitled to make a claim for the remedy provided by OpenNet pursuant to Clause 2 of this Schedule; however, the Service Level Guarantees shall not apply during the time taken by the Requesting Licensee to consider whether to proceed with the order.

- (f) where OpenNet has successfully changed the classification of a premise type from a Residential premise to a Non-Residential premise upon the request of the Requesting Licensee, any error in the Mandated Services Information shall not apply.

CLAUSE 6 – MODIFICATION REQUIRED

6. DELIVERY

IDA Directed Modifications: IDA refers to section 9 of the Explanatory Memorandum to this Direction, in relation to the timely status updates of any delays. Accordingly, IDA directs OpenNet to propose, for IDA's consideration, modifications to clause 6 to comply with the above. [ON 11 Apr 12 : Amended as per IDA's Direction.]

CLAUSES 6.1 AND 6.2 – MODIFICATION REQUIRED

6.1 Subject to clauses 5.2, 5.3, 5.4 and 6.2, OpenNet shall provide the Non-Residential End-User Connection by the end of ten (10) Business Days or, where applicable, a later date selected by the Requesting Licensee from the receipt of a valid Request from the Requesting Licensee, where OpenNet has deployed its Network to the FTTB Node of the Non-Residential Premise. OpenNet shall use its reasonable endeavours to install the First or, where necessary, the Additional Termination Point of the Non-Residential Premise, if applicable, during the Requesting Licensee's preferred session.

6.2 Where there is insufficient capacity to provide the Non-Residential End-User Connection, OpenNet shall subject to clause 5.2 provide the Non-Residential End-User Connection:

(a) within ten (10) Business Days from the receipt of a valid Request from the Requesting Licensee if additional capacity is required to be installed between the FTTB Node of the Non-Residential Premise and the First or Additional Termination Point of the Non-Residential Premise; or

(b) within forty (40) Business Days from the receipt of a valid Request from the Requesting Licensee if additional capacity is required to be installed between the designated Central Office and the First Termination Point of the Non-Residential Premise.

OpenNet shall use its reasonable endeavours to install the First or Additional Termination Point of the Non-Residential Premise, if applicable, during the Requesting Licensee's preferred session.

(c) Where there is a delay during service provisioning, the reasons for the delay and the estimated/revised timeframe required to complete service provisioning will be made available on the OpenNet Platform. In certain instances, OpenNet may through the OpenNet Platform, when available request the Requesting Licensee to arrange with the End User a reappointment after the delay is resolved. The Requesting Licensee may arrange the reappointment via the OpenNet Platform, when available. Alternatively the Requesting Licensee has the option to cancel the Request without charges in the event of insufficient capacity within one (1) Business Day upon OpenNet's notification to Requesting Licensee of the delay.

IDA Directed Modifications: IDA refers OpenNet to its directed modifications to clause 5.5. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, any consequential modifications to clauses 6.1 and 6.2 to comply with the above. [ON 11 Apr 12 : Amended as per IDA’s Direction.]

6.3 Where requested by the Requesting Licensee, OpenNet will install in-building cabling to be terminated at the First Termination Point inside the Requesting Licensee’s Non-Residential Premise. However, OpenNet is not liable to provide in-building ducting and cabling due to the following reasons:

- (a) the Non-Residential Building may already have in-building ducting and cabling; or
- (b) building owners may have their own preferences, requirements and constraints for in-building ducting and cabling.

CLAUSE 6.4 – MODIFICATION REQUIRED

6.4 If the Requesting Licensee requests OpenNet to install the in-building enclosure, ducting, cable tray and cabling, an additional one-time charge as stated in Schedule 15 (Charges) will be applicable.

IDA Directed Modifications: IDA has reviewed OpenNet’s proposed changes to clause 6.4 and notes that it is contrary to OpenNet’s earlier position that it would install the cable tray where required. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to reflect that OpenNet will construct the cable tray where required. [ON 28 Mar 12 : Amended as per IDA’s Direction.]

6.5 Where the owner of a Non-Residential Premise requires the use of deployment technique other than open ducting (for the avoidance of doubt, such deployment shall be provided by a third party), OpenNet shall inform the Requesting Licensee, and both parties shall mutually agree to a revised implementation timeline.

6.6 Unless otherwise stated, OpenNet shall retain the responsibility for working at OpenNet’s FDF at the Central Office and Building MDF Room, FTTB Node and First Termination Point, including Patching Service at OpenNet’s FDF at the Central Office, Building MDF Room and FTTB Node in accordance with Schedule 13 (Patching Service). The Requesting Licensee shall bear the Charges for such work carried out by OpenNet.

- 6.7 Where the Requesting Licensee requests Non-Residential End-User Connection for the purpose of providing OE services to the End-User, OpenNet will provide the necessary Patching Service at OpenNet's FDF in the Building MDF Room using Patch Cable of not exceeding ten (10) metres in length. The Requesting Licensee shall provide its own Patch Cable if it requires a longer Patch Cable. For the avoidance of doubt, where the Requesting Licensee provides its own Patch Cable, OpenNet will not offer and Requesting Licensee shall not request for any rebate or discount over the Patching Service or the Non-Residential End-User Connection.
- 6.8 OpenNet will only use optical fibre cable based on the ITU-T G.652D standard for outdoor installations and the ITU-T G.657A standard for in-building installations (where applicable) to deliver the Non-Residential End-User Connection.
- 6.9 OpenNet will test the optical fibre cable from OpenNet's FDF at its designated Central Office or the Requesting Licensee's FDF at the Central Office designated by OpenNet to the First Termination Point at the Non-Residential Premise (subject to clauses 6.3 and 6.4) or otherwise to the FTTB Node of the Non-Residential Premise where OpenNet's network ends, to ensure that the Non-Residential End-User Connection falls within the specified optical performance. Testing will be conducted at wavelengths of 1310nm, 1490nm and 1550nm.
- 6.10 OpenNet shall ensure that the optical power loss:
- (a) of any Non-Residential End-User Connection for the purpose of provision of GPON services does not exceed -28dB; and
 - (b) of any Non-Residential End-User Connection for the purpose of provision of OE services does not exceed -20 dB from OpenNet's FDF in the CO or the Requesting Licensee's FDF at the Central Office designated by OpenNet to OpenNet's FDF in the Building MDF Room, and does not exceed -20dB from OpenNet's FDF in the Building MDF Room to the First Termination Point of the Non-Residential Premise (subject to clauses 6.3 and 6.4) or otherwise to the FTTB Node of the Non-Residential Premise where OpenNet's network ends.
- 6.11 OpenNet shall promptly notify the Requesting Licensee upon the completion of the Non-Residential End-User Connection.
- 6.12 Subject to clause 6.13 and only applicable to a Service Request with twelve (12) months minimum contract term, in the event OpenNet fails to meet the applicable service activation period for a Request, OpenNet shall compensate the Requesting

Licensee an amount equal to the number of days of delay multiplied by the weekly recurring charge for the Non-Residential End-User Connection, subject to a maximum of 30 times the weekly recurring charge for the Non-Residential End-User Connection (**Weekly Recurring Charge**), where:

Weekly Recurring Charge = Monthly recurring charge x 7 / 30

Subject to clause 6.13 and only applicable to a Service Request with one (1) month minimum contract term, in the event OpenNet fails to meet the applicable service activation period for a Request, OpenNet shall compensate the Requesting Licensee an amount equal to the number of days of delay multiplied by the daily recurring charge for the Non-Residential End-User Connection, subject to a maximum of 50% of the monthly recurring charge for the Non-Residential End-User Connection, where

Daily Recurring Charge = Monthly Recurring Charge (1 month contract) / 30

CLAUSE 6.13 – MODIFICATION REQUIRED

6.13 ___ OpenNet shall not be required to compensate the Requesting Licensee under any of the following circumstances:

(a) ___ Delay in the granting of permission from or permission is not granted by the building owners/management or End-User to install the required Network to the Non-Residential Premise within the said building. In the event the Requesting Licensee raise a dispute questioning OpenNet's effort in remedying the obstruction, OpenNet will provide such evidence as may be available of its best endeavours;

(b) The owner of a Non-Residential Premise requires the use of a deployment technique other than open ducting;

(c) The Requesting Licensee requests the deferment of the service activation date; or

(d) ___ In the event of any obstruction from building owner or building management to OpenNet's installation or installation schedule or any of the circumstances described in Clauses 2.6(e) and 2.6(f) above during the express service activation, OpenNet shall use its best endeavours to remedy it expeditiously. The Requesting Licensee hereby acknowledges and agrees that OpenNet shall not be held liable for any delays upon OpenNet's best endeavours in

attempting to resolve any obstruction from building owner or building management. In the event the Requesting Licensee raise a dispute questioning OpenNet's effort in remedying the obstruction, OpenNet will provide such evidence as may be available of its best endeavours;

~~(e)(d)~~ The building which was initially under network coverage has been reconstructed and OpenNet has to reinstall its Network to the building.

For the avoidance of doubt, where the service activation date has been revised pursuant to any of the circumstances contemplated in this clause 6.13 or elsewhere in the ICO Agreement (unless otherwise stated), OpenNet shall nevertheless be required to compensate the Requesting Licensee if it fails to meet the revised implementation timeline.

IDA Directed Modifications: Clause 6.13 sets out several circumstances under which OpenNet would not be required to compensate Requesting Licensees.

IDA received a number of comments concerning this clause. In particular, it was suggested that clause 6.13(a) should be subject to two requirements: (a) OpenNet must have used its best endeavours to obtain any licence or permission expeditiously; and (b) OpenNet must provide Requesting Licensees with evidence of such licence/permission, the steps taken to obtain it expeditiously and why OpenNet cannot obtain the licence/permission.

After careful consideration, IDA agrees that OpenNet should be required to use its best endeavours to obtain expeditiously the necessary licences or permission mentioned in clause 6.13(a). However, IDA is of the view that it is not necessary to require OpenNet to furnish evidence of this in every case. Instead, it would be more efficient if OpenNet were required to furnish evidence only in the event that a challenge or dispute is raised by Requesting Licensees as to whether OpenNet has used its best endeavours in the manner described above.

Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 6.13(a) to incorporate the above requirements.
[ON 11 Apr 12 : Amended as per IDA's Direction.]

CLAUSES 6.14 AND 6.15 – MODIFICATION REQUIRED

- 6.14 The Requesting Licensee may submit a Request for express service activation period of one (1) Business Day for the provision of a Non-Residential End-User Connection via OpenNet Platform, when available. The OpenNet Platform will provide the available slots for express service which will be distinguishable from slots available for normal service. All Request for express service activation shall be; subject to the following conditions:

CLAUSE 6.14(a) – MODIFICATION REQUIRED

- (a) OpenNet's fibre network has already been rolled out from the Central Office to the serving cabinet and from the serving cabinet to the First Termination Point in the Non-Residential Premise (which must already been installed and where the location of the First Termination Point remained unchanged). Where the Request is submitted via the OpenNet Platform, when available, the OpenNet Platform will also indicate if the particular premise is eligible for express service.;

IDA Directed Modifications: IDA refers OpenNet to its directed modifications to clause 6.11(a) to Schedule 1. Similar to the position therein, IDA is of the view that it would result in a more efficient implementation of the ICO for OpenNet to indicate in its Platform and via B2B transactions on whether a particular address is available for express service as part of its feasibility check. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 6.14(a) to comply with the above. [ON 11 Apr 12 : Amended as per IDA's Direction.]

- (b) The maximum number of Requests for express service activation is limited to forty (40) per day from all Requesting Licensees for all services, which must fall within the Maximum Quota;

CLAUSE 6.14(c) – MODIFICATION REQUIRED

- (c) Express service for 2nd Fibre activation applies only if there are available fibres in all segments from CO to the 2nd port of the First Termination Point. Where the Request is submitted via the OpenNet Platform, when available, the OpenNet Platform will also indicate if the particular premise is eligible for express service.;

IDA Directed Modifications: IDA refers OpenNet to its directed modifications to clause 6.11(a) to Schedule 1. Similar to the position therein, IDA is of the view that it would result in a more efficient implementation of the ICO for OpenNet to indicate in its Platform and via B2B transactions on whether a particular address is available for express service as part of its feasibility check. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 6.14(c) to comply with the above. JON 11 Apr 12 : Amended as per IDA's Direction.

CLAUSE 6.14(d) – MODIFICATION REQUIRED

- (d) ___ There is a daily cut off-time of ~~12pm+10am~~ for the Requesting Licensee to submit Requests for express service activation. All Requests for express service activation received by ~~12pm+10am~~ daily will be provisioned by the next Business Day. Any Requests for express service activation received after ~~12pm +0am~~ daily will be provisioned two (2) Business Days later;

IDA Directed Modifications: Comments were received that the 10 am cut-off time is impractical, and that OpenNet should offer a more practical and useful timeframe for the Requesting Licensees to submit their Requests for express service activation. After careful consideration, IDA agrees that there is merit to require OpenNet to extend the cut-off time so as to allow for more flexibility in express service activation. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 6.14(d) to provide for the daily cut-off time to be extended to a more appropriate time. For the purposes of the above, IDA considers that a cut-off time of 12 noon would be more reasonable. JON 11 Apr 12 : Amended as per IDA's Direction.

CLAUSE 6.14(e) – MODIFICATION REQUIRED

- (e) The Requesting Licensee hereby acknowledges and agrees that OpenNet shall not be held liable for any delays where OpenNet has exercised its best endeavours in its attempt to remedy if there is any obstructions from building owner, building management, home owner or End-User to OpenNet's installation or installation schedule or any of the circumstances described in Clauses 2.6(e) and 2.6(f) above during the express service activation. In the event the Requesting Licensee raise a dispute questioning OpenNet's effort in remedying the obstruction, OpenNet will provide such evidence as may be available of its best endeavours ;

IDA Directed Modifications: It was suggested that two additional requirements be imposed: (a) OpenNet must have used its best endeavours to remedy any obstruction expeditiously, and (b) OpenNet must provide Requesting Licensees with evidence of such obstruction, the steps taken to remedy it expeditiously and why OpenNet cannot remedy the obstruction.

IDA has carefully considered the situation and agrees that where there is genuine obstruction, OpenNet must be required to use its best endeavours to remedy it expeditiously. IDA is also of the view that it is not necessary to require OpenNet to furnish evidence in every case of obstruction. Instead, it would be more efficient if OpenNet were required to furnish evidence only in the event that a challenge or dispute is raised by Requesting Licensees as to whether OpenNet has used its best endeavours to expeditiously remedy the obstruction.

Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 6.14(e) to incorporate the above requirements.

[ON 11 Apr 12 : Amended as per IDA's Direction.]

- (f) OpenNet shall only provision Requests for express service activation which meet the conditions stated in (a), (b) and (c) above, and will reject the Request for express service activation if any of the conditions in (a), (b) and (c) above or, if applicable, as specified in clauses 5.3 and 5.4 above are not met. The Requesting Licensee shall pay an Express Service Activation Request Charge in accordance with Schedule 15 (Charges);
- (g) The Cancellation Charge set out in accordance with Schedule 15 (Charges) shall be applicable should the Requesting Licensee cancel the Request for express service activation after acceptance by OpenNet of such Request; and

CLAUSE 6.14(h) – MODIFICATION REQUIRED

- (h) Subject to clause 6.10, The provisioning of the Request for express service activation will only cover patching in Serving Cabinet and/or Central Office by OpenNet. ~~OpenNet will not conduct any testing during patching in the Serving Cabinet (from Serving Cabinet to First Termination Point).~~ The power meter measurement will be performed during patching at Central Office (from Central Office to MDF).

IDA Directed Modifications: Comments were received that End-Users should not accept a lower quality of service (i.e., reduced testing obligations on OpenNet) just because they request for express service activation. In addition, as currently drafted, clause 6.14(h) fails to provide details of OpenNet’s applicable testing measurements.

IDA agrees with these concerns and considers that, at a minimum, OpenNet must still comply with the optical power limits set out in clause 6.10.

Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to clause 6.14(h) to provide expressly that OpenNet will comply with the above requirements in relation to express service activation. [ON 11 Apr 12 : Amended as per IDA’s Direction.]

- 6.15 (a) Where the Requesting Licensee submits the order via the OpenNet Platform, when available, the OpenNet Platform will provide the available slots for express service which will be distinguishable from the slots available for normal service for Requesting Licensee to order. The Request for express service activation is also applicable for Non-Residential Connections where internal wiring is not required (as set out in clause 3.3) provided that the following conditions have been met:
- (i) The in-building fibre (both vertical and horizontal) from MDF to the termination point is provided by the Requesting Licensee and has already been installed (as set out in clause 3.3)
 - (ii) The Requesting Licensee undertakes to maintain the network and troubleshoot in the event of faults;
- (b) The maximum number of Requests for express service activation is limited to forty (40) per day from all Requesting Licensees for all services, which must fall within the Maximum Quota;

CLAUSE 6.15(c) – MODIFICATION REQUIRED

- (c) Express service for 2nd Fibre activation applies only if there are available fibres in all segments from CO to the 2nd port of the First Termination Point.; Where the request is submitted via the OpenNet Platform, when available, the OpenNet Platform will indicate if the particular premise is eligible for express service

IDA Directed Modifications: IDA refers OpenNet to its directed modifications to clause 6.11(a) to Schedule 1. Similar to the position therein, IDA is of the view that it would result in a more efficient implementation of the ICO for OpenNet to indicate in its Platform and via B2B transactions whether a particular address is available for express service as part of its feasibility check. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 6.15(c) to comply with the above. [ON 11 Apr 12 : Amended as per IDA's Direction.]

CLAUSE 6.15(d) – MODIFICATION REQUIRED

- (d) There is a daily cut off-time of 12pm +1am for the Requesting Licensee to submit Requests for express service activation. All Requests for express service activation received by 12pm +0am daily will be provisioned by the next Business Day. Any Requests for express service activation received after 12pm+0am daily will be provisioned two (2) Business Days later;

IDA Directed Modifications: Comments were received that the 10 am cut-off time is impractical, and that OpenNet should offer a more practical and useful timeframe for the Requesting Licensees to submit their Requests for express service activation. After careful consideration, IDA agrees that there is merit to require OpenNet to extend the cut-off time so as to allow for more flexibility in express service activation. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 6.15(d) to provide for the daily cut-off time to be extended to a more appropriate time. For the purposes of the above, IDA considers that a cut-off time of 12 noon would be more reasonable. [ON 11 Apr 12 : Amended as per IDA's Direction.]

CLAUSE 6.15(e) – MODIFICATION REQUIRED

- (e) The Requesting Licensee hereby acknowledges and agrees that OpenNet shall not be held liable for any delays where OpenNet has exercised its best endeavours in its attempts to remedy if there is any obstructions from building owner, building management, home owner or End-User to OpenNet's installation or installation schedule or any of the circumstances described in Clauses 2.6(e) and 2.6(f) above during the express service activation. In the event the Requesting Licensee raise a dispute questioning

OpenNet's effort in remedying the obstruction, OpenNet will provide the such evidence as may be available of its best endeavour ;

IDA Directed Modifications: It was suggested that two additional requirements be imposed: (a) OpenNet must have used its best endeavours to remedy any obstruction expeditiously, and (b) OpenNet must provide Requesting Licensees with evidence of such obstruction, the steps taken to remedy it expeditiously and why OpenNet cannot remedy the obstruction.

IDA has carefully considered the situation and agrees that where there is genuine obstruction, OpenNet must be required to use its best endeavours to remedy it expeditiously. IDA is also of the view that it is not necessary to require OpenNet to furnish evidence in every case of obstruction. Instead, it would be more efficient if OpenNet were required to furnish evidence only in the event that a challenge or dispute is raised by Requesting Licensees as to whether OpenNet has used its best endeavours to expeditiously remedy the obstruction.

Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 6.15(e) to incorporate the above requirements.

[ON 11 Apr 12 : Amended as per IDA's Direction.]

- (f) OpenNet shall only provision Requests for express service activation which meet the conditions stated in (a), (b) and (c) above, and will reject the Request for express service activation if any of the conditions in (a), (b) and (c) above or, if applicable, as specified in clauses 5.3 and 5.4 above are not met. The Requesting Licensee shall pay an Express Service Activation Request Charge in accordance with Schedule 15 (Charges); and
- (g) The cancellation charge set out in accordance to Schedule 15 (Charges) shall be applicable should the Requesting Licensee cancel the Request for express service activation after acceptance by OpenNet of such Request.

(h) In the event, OpenNet is unable to provision the express service within one (1) Business Day due to OpenNet's fault, OpenNet will not charge the additional express service charges, but impose charges applicable for normal installation service as stated in Schedule 15 (Charges) and shall provision the Request within ten (10) Business Days. If the provisioning delay persist beyond ten (10) Business Days, SLG shall apply starting from the tenth (10th) Business Day from the date of Request.

IDA Directed Modifications: As proposed, OpenNet’s express service activation is currently limited to 40 Requests per day. It was commented that no provision has been made for OpenNet’s B2B and Portal to display the number of remaining available slots within OpenNet’s order management process, and that the ICO should make provision for this. It was also commented that if OpenNet is unable to meet the express service SAP, OpenNet should not be allowed to impose any “express service” Charges, but only “normal service” charges.

After careful consideration, IDA is of the view that there is merit in the comment above. IDA therefore considers that it is reasonable to require OpenNet to clarify in its ICO the following points:

- (a) how OpenNet would make available the information on available slots for express service at the point of ordering. The slots for express service must also be clearly distinguishable in OpenNet Platform and during the B2B transactions;
- (b) how OpenNet would address the situation where it is not able to provision the express service within 1 Business Day due to OpenNet’s fault. In this regard, IDA’s considers that it would be reasonable for OpenNet to: (i) impose a discounted one-time fee, (ii) offer a rebate, or (iii) both; and
- (c) how OpenNet would address the situation where it is only able to provision the express service on or after the 10 Business Day due to OpenNet’s fault. In this regard, IDA’s considers that it would be reasonable for OpenNet to only impose “normal service” charges and that the Service Level Guarantees for “normal service” shall apply.

In the interests of clarity, IDA also requires OpenNet to clarify that the timeframe for delivering express service under clause 6.15 shall be 1 Business Day.

Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to clauses 6.14 and 6.15 to incorporate IDA’s requirements above. **[ON 11 Apr 12 : Amended as per IDA’s Direction.]**

CLAUSE 6.16 – MODIFICATION REQUIRED

IDA Directed Modifications: Comments were received that OpenNet should be required to provide a weekly update and/or an update each time the status of an order changes, even if the delay is not within OpenNet's control. Further, when a delay is for more than 2 weeks, Requesting Licensees should have the option to cancel the order without charge. [ON 11 Apr 12 : Amended as per IDA's Direction.]

After careful consideration of the comments received, IDA agrees that in the interests of clarity, it would be useful for OpenNet to provide timely updates. OpenNet should be required to provide weekly updates and/or provide updates each time the status of an order changes. In addition, OpenNet should not impose a cancellation charge if delays are more than 2 weeks after the Request for Service date. [ON 11 Apr 12 : Amended as per IDA's Direction.]

In this regard, IDA refers OpenNet to section 3 and section 9 of the Explanatory Memorandum to this Direction, in relation to Non-Residential End-User Connection delays and timely updates. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 6.16 in the manner specified therein. [ON 11 Apr 12 : Amended as per IDA's Direction.]

6.16 (a) Should OpenNet encounter any events described in Clause 2.6 above which prevents the fulfilment of the Request within the stipulated service activation period, OpenNet shall inform the Requesting Licensee accordingly and provide information on (i) cause of delay, (ii) actions taken or to be taken, (iii) tentative revised RFS date including further revisions, if any and (iv) suspension of any relevant Service Level Guarantee. OpenNet shall provide the Requesting Licensee with the status of the affected orders on a periodic basis until completion. However, OpenNet may not be able to provide revised RFS date for delays outside OpenNet's control which includes but not limited to, RFS dependent on the response from Building Management, Requesting Licensee and/or End-User.

CLAUSE 6.16(b) – MODIFICATION REQUIRED

(b) For avoidance of doubt, OpenNet shall use its best endeavours to resolve any obstructions and/or access issues but will not be responsible for the resolution or removal of such events described in Clause 2.6 above which prevent the fulfilment of the Request within the stipulated service activation period -and OpenNet shall not be liable for any such delays.

(c) Where there is a delay during service provisioning, the OpenNet Platform will provide the reasons for the delay and the estimated/revised timeframe required to complete service provisioning. In certain instances, OpenNet may request the Requesting Licensee to arrange with the End-User a reappointment after the delay is resolved. OpenNet will notify the Requesting Licensee via the OpenNet Platform, when available for such requests. The Requesting Licensee is able to arrange the reappointment via the OpenNet Platform, when available.

(e) If there is an undue delay for more than two (2) weeks from the date of Request due to OpenNet's fault, the Requesting Licensee shall be allowed to cancel without incurring cancellation charges.

IDA Directed Modifications: Comments were received that many of the building access issues emanate from OpenNet's reluctance to resolve such issues expeditiously, and that it is critical for the success of the Next Gen NBN that OpenNet must use its best endeavours to remedy any obstruction or event expeditiously. It was suggested that clause 6.16(b) be deleted.

IDA has considered the comments carefully, and agrees that as a responsible service provider, OpenNet must use its best endeavours to resolve any obstructions and/or access issues. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 6.16(b) to incorporate the IDA's requirements above. JON 11 Apr 12 : Amended as per IDA's Direction.

7. RESPONSIBILITY AT DP AND OPENNET FDF

7.1 The Requesting Licensee shall not, and shall ensure that its employees, agents and contractors do not, at any time access OpenNet's FDF at the Central Office and Building MDF Room, the FTTB Node and the Distribution Point.

7.2 Where the Requesting Licensee wishes to change the existing patching connection at OpenNet's FDF at the Central Office, Building MDF Room or FTTB Node, the Requesting Licensee shall submit an application for the termination of existing Patching Service and order for a new Patching Service at the Central Office, Building MDF Room or FTTB Node in accordance with Schedule 13 (Patching Service).

8. DEACTIVATION

CLAUSES 8.1 AND 8.2 – APPROVED

- 8.1 Subject to the minimum contract term, the Requesting Licensee may deactivate the Non-Residential End-User Connection by giving OpenNet a Request not less than ten (10) Business Days in accordance to the process described in Schedule 13 (Patching) and the timeframe for patching deactivation as described in Schedule 13 shall not apply in this specific case.
- 8.2 The cancellation of the Request for deactivation shall be submitted to OpenNet at least one (1) Business Day before the date of the deactivation of the Non-Residential End-User Connection.
- 8.3 If the Non-Residential End-User Connection service is terminated by the Requesting Licensee pursuant to clause 8.1 before the expiry date of the minimum contract term, the Requesting Licensee must pay OpenNet one hundred percent (100%) of the Monthly Recurring Charge for the remainder of the minimum contract term.
- 8.4 Where any Patching Service is no longer required as a result of the termination of the Non-Residential End-User Connection, OpenNet shall remove the Patching Service at all the relevant access points and the Requesting Licensee shall be liable for the termination charges for removing the Patching Service at the Central Office designated by OpenNet in accordance with Schedule 15 (Charges). Notwithstanding the above, the Requesting Licensee shall not be liable to pay any Charges for the removal of Patching Service related to or in connection with the termination of the Non-Residential End-User Connection, if such termination is the result of OpenNet's fault.

9. STANDARD TERMS AND CONDITIONS

CLAUSE 9.1 – MODIFICATION REQUIRED

- 9.1 OpenNet shall at its sole discretion determine its network deployment, including but not limited to the access points, fibre cable routing and location of the Central Office, Building MDF Room, FTTB Node, Distribution Point and ~~First~~ Termination Point from which the Non-Residential End-User Connection is provided. Prior to installation of the Termination Point, OpenNet will assess the location's suitability for the deployment of active equipment, with adequate ventilation and power. Notwithstanding, OpenNet's assessment and recommendation on location of the Termination Point, OpenNet shall defer to the agreement or instructions of the End-

User. The Requesting Licensee, its agents or sub contractors shall not tamper with, modify, remove or re-locate any Termination Point or any part of the Network in any way or take steps to repair any Termination Point or any part of the Network.

IDA Directed Modifications: Comments were received that clause 9.1 as drafted gives OpenNet very wide discretion to determine its network deployment and this may result in Termination Points being installed in unsuitable locations.

To address the concern, IDA considers that it would be reasonable to require OpenNet to take into account the suitability of locations for the installation of Termination Points. In general, Termination Points should be located where they can accommodate the deployment of active equipment, with adequate ventilation and power points within the reach of active equipment. Notwithstanding, IDA also recognises that the location of the Termination Point would ultimately be dependent on the choice of the End-User.

Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 9.1 to: (a) give effect to the requirement that OpenNet will consider the suitability of a location (as described above) before a Termination Point is installed; and (b) state that the location of a Termination Point is ultimately subject to the choice of the End-User.

[ON 11 Apr 12 : Amended as per IDA's Direction.]

- 9.2 OpenNet shall be responsible for the maintenance of the Non-Residential End-User Connection, excluding all in-building enclosure, ducting, cabling and cable tray provided by building owner installed under this Schedule.
- 9.3 Except to the extent strictly necessary to accurately describe the service to actual or potential Customers, the Requesting Licensee shall not use OpenNet's name, any of OpenNet's trademarks or the fact that any service is supplied using OpenNet's Network in promoting the Requesting Licensee's service.
- 9.4 The Parties shall in good faith co-operate with each other and take reasonable measures to ensure that there is no interference with or deterioration to OpenNet's existing services or those of a Third Party as a result of the Requesting Licensee's use of the Non-Residential End-User Connection.

9.5 If it is necessary to carry out any scheduled service interruption, including but not limited to planned repair, or replacement or upgrade to any equipment or facility forming part of the Non-Residential End-User Connection, OpenNet shall provide the Requesting Licensee with at least one (1) month's ~~written~~ notice in advance of such interruptions, repairs or upgrades, and shall inform Requesting Licensees of the period of service interruption. OpenNet shall take reasonable measures to minimise any service disruption to the Requesting Licensee.

CLAUSE 9.6 – MODIFICATION REQUIRED

9.6 OpenNet shall include the following details in the written notification or via OpenNet Platform APIs to the Requesting Licensee:

- (a) Affected Location;
- (b) Date of occurrence;
- (c) Time of occurrence (start & end timings);
- (d) Cause of Planned Disruption;
- (e) Order Request Identifier of the affected orders; and
- (f) OpenNet's Network Operations Centre Contact Number.

~~The Requesting Licensee is required to acknowledge receipt of OpenNet's notification within one (13) Business Day.~~

IDA Directed Modifications: Comments were received that there is no justifiable reason for OpenNet to require the Requesting Licensee to acknowledge receipt of its notification within one Business Day.

In this regard, IDA requires OpenNet to provide justification as to why it requires the Requesting Licensee to acknowledge the request in the first place, as well as the short timeframe of only one Business Day. If OpenNet is unable to provide valid justification, IDA may further direct that this requirement to provide notice be removed altogether or subject to a more reasonable period. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 9.6 to address the above. [ON 11 Apr 12 : Amended as per IDA's Direction.]

- 9.7 If the scheduled service interruption affects Non-Residential End-User Connections, OpenNet will endeavour to carry out the scheduled service interruption between 1am and 6am, unless it is not feasible for OpenNet to do so.
- 9.8 Subject to Requesting Licensee acquiring redundancy service, OpenNet shall, where technically feasible, provide assistance to the Requesting Licensee to divert its Non-Residential End-User Connection to the redundancy service before commencing the scheduled service interruption.
- 9.9 Where there are available resources, OpenNet will, where possible, first divert critical links to alternative routings before commencing the scheduled service interruption.
- 9.10 Subject to clause 9.6, OpenNet shall not be liable for any loss caused by such scheduled service interruption, except for any Service Level Guarantee that arises from OpenNet carrying out the scheduled service interruption outside of the stipulated period and the Requesting Licensee has reported the fault in accordance to clause 11.
- 9.11 The Requesting Licensee shall be responsible to the Requesting Licensee's Customers for all aspects of the Requesting Licensee's services including but not limited to the operations and maintenance of the Requesting Licensee's service and the maintenance and availability of in-building enclosure, ducting, cabling and cable tray provided by the building owner.
- 9.12 The Requesting Licensee must procure and maintain at its own cost:
- (a) any equipment or software needed to implement, receive or use the Non-Residential End-User Connection (including but not limited to any configuration of the NTE at the Non-Residential Premise);
 - (b) co-location at the designated Central Office and Building MDF Room; and
 - (c) access to the Non-Residential Premise.

CLAUSES 9.13 AND 9.14 – MODIFICATION REQUIRED

~~9.13 Upon receipt by OpenNet of any request from Requesting Licensee for Removal, OpenNet shall perform such Removal which shall not include removal of any part of the Network, surface trunking and/or termination point that are concealed either by a false ceiling, within any furniture or rendered inaccessible. The Requesting Licensee will have to bear the charge for Removal of the termination point in accordance to Schedule 15 (Charges). End User shall ensure that OpenNet and/or its Contractor has~~

~~ease of access to perform such Removal. OpenNet shall endeavour to minimize damage to the wall and/or other fittings save that OpenNet shall not be responsible or liable to move or shift any furniture or items belonging to End User, re-plaster the wall, perform any painting works or reinstate the wall and/or other fittings accordingly.~~

9.134 Upon receipt by OpenNet of any request from ~~Building Management, authorities,~~ Requesting Licensee for Removal, ~~OpenNet shall check if the Termination Point is in use by any Requesting Licensee. OpenNet will reject the request if the Termination Point is in use, otherwise~~ OpenNet shall perform such Removal which shall not include removal of any part of the Network, surface trunking and/or ~~T~~ermination ~~P~~point that are concealed either by a false ceiling, within any furniture or rendered inaccessible. Requesting Licensee shall ~~assist OpenNet in obtaining ensure and obtain~~ the relevant approvals or consent from the relevant building owner or authorities such that OpenNet and/or its Contractor has ease of access to perform such Removal. For the avoidance of doubt, all incidental costs ~~other than including but not limited to~~ security deposits or escort charges related to the Request for Removal shall be borne by the Requesting Licensee on a ~~C~~ost-~~O~~riented ~~B~~asis. The Requesting Licensee will have to bear the charge for Removal of the ~~T~~ermination ~~P~~point in accordance to Schedule 15 (Charges). ~~OpenNet shall use its best endeavours to minimize damage to the wall and/or other fittings save that OpenNet shall not be responsible or liable to move or shift any furniture or items belonging to End-User, re-plaster the wall, perform any painting works or reinstate the wall and/or other fittings accordingly.~~

IDA Directed Modifications: IDA noted that there is a significant overlap between the two clauses. In IDA's opinion, clause 9.14, in its present form, appear to be more applicable. Accordingly, unless OpenNet can justify otherwise, IDA directs OpenNet to delete clause 9.13 in its entirety.

In relation to the proposed clause 9.14, IDA has received the following comments:

(a) Security deposits are for the assurance of conduct of the installers. It is highly inequitable for the Requesting Licensees to be guaranteeing the performance of OpenNet's contractors. OpenNet should bear its own charges such as security deposits and escort charges. For the avoidance of doubt, Requesting Licensee should not be responsible for any request made by any

other party such as Building Management, authorities etc. In the event that OpenNet receives a Removal request by any other party other than Requesting Licensee for removal service, OpenNet shall inform the Requesting Licensee of such request.

- (b) It is OpenNet's responsibility as a NetCo to secure the relevant approvals or consents from the relevant building owner or authorities. This responsibility must not to be shifted to Requesting Licensee. Similarly, costs of obtaining such approvals or consents ought to be borne by OpenNet, not Requesting Licensee. Accordingly, clause 9.14 ought to be amended accordingly.***

IDA has carefully reviewed the industry comments and IDA's position is as follows:

- (a) IDA agrees that the Requesting Licensee should not be responsible for any request made by any other party. If OpenNet receives a removal request from any such parties, OpenNet should inform Requesting Licensee of such request. The costs of such removal should not be borne by Requesting Licensee; and***
- (b) IDA agrees that as the provider of the service, it is only reasonable for OpenNet to be responsible to secure the relevant approvals or consents from the relevant building owner or authorities. Accordingly, OpenNet should bear the costs related to securing such approvals or consents (including security deposit and where applicable, escort charges). That said, if there is a need for OpenNet to approach Requesting Licensee for assistance, Requesting Licensee should render its assistance and all parties should work together to secure the approvals or consents.***
- (c) Further, IDA considers that it would promote clarity by requiring OpenNet to set out the processes that would be applicable in the situation where OpenNet receives a request for removal but the Termination Point is still in use. In addition, similar to the position adopted for Schedule 1, IDA also considers that it is reasonable for OpenNet to use its best endeavour to minimise damage in the process of the removal of Termination Point. OpenNet is therefore required to make clear the above in its clause.***

Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 9.14 to include the above requirements and to address the scenarios highlighted.

IDA also requires OpenNet to ensure consistency in its usage of defined terms. Without limitation to the foregoing, IDA notes that "Cost-Oriented Basis" and "Termination Point" are defined terms in Schedule 18, whereas there are references to "cost-oriented basis" and "cost-oriented" as well as "termination point" in this clause. Where applicable, OpenNet should ensure consistent usage of the term "Cost-Oriented Basis" and "Termination Point". [ON 11 Apr 12 : Amended as per IDA's Direction.]

9.1~~4~~⁵ Nothing in this Schedule vests in the Requesting Licensee any right, title or proprietary interest in the optical fibre cable, equipment or facilities forming part of the Non-Residential End-User Connection.

CLAUSE 9.16 – MODIFICATION REQUIRED

9.1~~5~~⁶ Onsite charges are applicable whenever Requesting Licensee requests for OpenNet to be onsite ~~for any reason(s)~~ other than for reasons caused by OpenNet's fault or error.

IDA Directed Modifications: Comments were received that OpenNet should not be allowed to impose onsite charges in cases where OpenNet needs to be present to provision the service or to be present due to its own fault or error. After careful consideration, IDA agrees that it would be unreasonable for any onsite charge to be imposed under such circumstances as it is not caused by the Requesting Licensee.

Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to this clause 9.16 to give effect to the above requirement. [ON 11 Apr 12 : Amended as per IDA's Direction.]

10. ACCESS AND APPROVALS REQUIRED

10.1 The Parties shall comply with clause 15.5 of the main body of this ICO Agreement in relation to the obtaining of all licences, permits, consents, waivers, authorisations and intellectual property or other rights required for the provision of the Non-Residential End-User Connection.

11. FAULT REPORTING AND CLEARING

11.1 Each Party must have or establish a Fault Reporting and Control Centre (FCC) to act as a single point of contact for the reporting, management and clearing of faults. The FCC must be available twenty-four (24) hours a day, seven (7) days a week.

CLAUSE 11.2 – APPROVED

11.2 It is the Requesting Licensee's responsibility to determine the source of the fault at its own cost and to ensure that the fault does not lie within its network before reporting the fault to OpenNet. The Requesting Licensee shall pay OpenNet according to Schedule 15 (Charges) for cancellation of any fault reported regardless of the response or stage of investigation by OpenNet.

CLAUSE 11.3 – MODIFICATION REQUIRED

11.3 Where the fault is reported via the OpenNet Platform, the Requesting Licensee shall indicate the following:

(a) Order Request Identifier

(b) Requesting Licensee Incident ID

(c) Incident type

(d) Description of fault ticket

(e) End-User contact details

Upon successful submission of the fault, the OpenNet Platform will provide a fault acknowledgement.

Upon receipt of a fault report from the Requesting Licensee under clause 11.2, OpenNet shall investigate the cause of the fault experienced by the Requesting Licensee in a diligent and responsible manner as would be expected of a competent service provider. OpenNet shall provide periodic updates~~update to~~ the Requesting Licensee on the status of the fault rectification as and also updates when there is a change in status of the fault investigation/rectification work through OpenNet Platform, when available.

IDA Directed Modifications: IDA refers OpenNet to section 9 of the Explanatory Memorandum to this Direction. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to clause 11.3 in the manner specified therein. Without limitation to the foregoing, OpenNet should provide Requesting Licensees with (a) periodic updates on the status of the fault rectification; and (b) updates when there is a change in status of the fault investigation/rectification work. [ON 11 Apr 12 : Amended as per IDA’s Direction.]

11.4 If, following investigation, OpenNet determines that the fault is at the Transmission Tie Cable at the Central Office, OpenNet will patch the Non-Residential End-User Connection to another available Transmission Tie Cable Port and charge the Requesting Licensee a Patching Charge in accordance with Schedule 15 (Charges) if the Requesting Licensee was responsible for the fault at the Transmission Tie Cable at the Central Office.

CLAUSE 11.5 – MODIFICATION REQUIRED

11.5 If, following investigation, OpenNet determines that the fault is at the Patch Cable at the Building MDF Room, OpenNet will replace with another Patch Cable(s) and charge the Requesting Licensee a Patching Charge(s) in accordance with Schedule 15 (Charges). ~~OpenNet will charge the Requesting Licensee a Patching Charge~~ if the Requesting Licensee was responsible for the fault at the Patch Cable at the Building MDF Room.

IDA Directed Modifications: IDA notes that as currently drafted, clause 11.5 appears to be unclear in relation to the differing circumstances for Patching Charges. For clarity, IDA directs OpenNet to propose, for IDA’s approval, modifications to clause 11.5, to state that Requesting Licensees will only be charged a Patching Charge if they are responsible for the fault at the Patch Cable at the Building MDF Room. [ON 11 Apr 12 : Amended as per IDA’s Direction.]

11.6 If, following investigation, OpenNet determines that no fault is found or the fault is not due to the OpenNet Network or equipment, then OpenNet shall charge the Requesting Licensee a No Fault Found Charge for the fault report in accordance with Schedule 15 (Charges).

11.7 The process for fault investigation shall be as follows:

CLAUSE 11.7(a) – MODIFICATION REQUIRED

- (a) For each of the three (3) wavelengths of 1310nm, 1490nm and 1550nm, the optical power shall be measured in accordance with clause 6.10 above where possible, and the findings shall be clearly recorded using the "Fault Rectification Service Report" (Annex 2B).

IDA Directed Modifications: Comments were received that power loss should not be the only criterion for "no fault found" as there are numerous scenarios where the Non-Residential End-User Connection could be disrupted due to faults by OpenNet. In particular, it was commented that service may continue to be disrupted even though the fibre reading is within the range due to OpenNet patching the End-User fibre to the wrong splitter.

In this regard, IDA considers that it is reasonable to require OpenNet to propose measures to address the concerns relating to wrong patching. As an example, IDA refers to the first bullet point of clause 11.7(b), and considers that OpenNet could ensure that patching at the MDF and/or CO and the patch cords are properly installed as part of the investigation process before concluding that there is "no fault found".

Accordingly, IDA directs OpenNet to propose, for IDA's approval, modification to clause 11.7(a) to incorporate the above requirement. [ON 11 Apr 12 : Amended as per IDA's Direction.]

(b) if the power loss do not exceed the limit specified in clause 6.10 then ~~a finding of "no fault found" will be recorded, otherwise~~ the following steps shall be carried out before a finding of "no fault found" will be recorded:

- determine that the patching at CO/MDF room and the patch cord are properly installed
- determine the optical power at the output of splitter port, for GPON is within acceptable limits
Or determine the optical power at the output of the OE to OpenNet's FDF in the Building MDF room is within the acceptable limits
- determine that no macro bending that produces high loss
- determine that no dirty/damaged connector
- determine that no fibre cut or damaged Termination Point
- determine that there is no wrong patching

- measurements of the following shall also be taken :
 - optical time-domain reflectometer

 - power loss

CLAUSE 11.7(c) – MODIFICATION REQUIRED

(c) Upon completion of ~~the any~~ joint investigation, OpenNet will hand over the Termination Point to the Requesting Licensee and both Parties shall jointly sign off on the “Fault Rectification Service Report” (Annex 2B), which will state the outcome of the joint investigation. In non-joint investigation, ie where Requesting Licensee is absent despite notification from OpenNet, OpenNet shall conclude the investigation on-site and inform the Requesting Licensee of the outcome accordingly which Requesting Licensee shall not dispute. OpenNet shall provide periodic updates to the Requesting Licensee on the status of the non-joint investigation and also updates when there is a change in status of the non-joint investigation through OpenNet Platform, when available.

IDA Directed Modifications: Comments were received that as currently drafted, clause 11.7(c) can be read to imply that a joint investigation is always required for the process of fault investigation, whereas this is not always the case. In addition, OpenNet should only require the Requesting Licensee to jointly sign off on the “Fault Rectification Service Report” if both parties are present onsite for fault rectification.

IDA agrees that joint investigations are not required for every case. The resources required to co-ordinate and carry out a joint investigation would likely be more onerous and burdensome than a non-joint investigation. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modification to clause 11.7(c) to clarify that the proposed process is also applicable to non-joint investigation or to provide for an additional process in relation to non-joint investigation.

In addition, IDA refers OpenNet to section 9 of the Explanatory Memorandum to this Direction. IDA reminds OpenNet that it is required to provide timely status updates to Requesting Licensees, and without limitation to the foregoing, OpenNet must inform Requesting Licensees of the cause of the fault when it resolves the fault. JON 11 Apr 12 : Amended as per IDA’s Direction

CLAUSE 11.8 – MODIFICATION REQUIRED

11.8 If OpenNet is unable to identify any fault, OpenNet will call for a fault identification coordination meeting between OpenNet and the Requesting Licensee to identify the fault. The OpenNet Platform will notify the Requesting Licensee on the request for fault identification. The Requesting Licensee shall provide all reasonable assistance requested by OpenNet. Each Party is to bear its own cost for attending with reference to clause 11.10, such fault identification coordination meeting as well as any testing or trouble-shooting activities required as a result of such a meeting. For the avoidance of doubt, save as provided below, each party shall bear its own costs for the purpose of any fault investigation:

IDA Directed Modifications: IDA notes that clauses 11.8(a)-(c) apply to both fault identification coordination meetings initiated by OpenNet and joint investigations initiated by Requesting Licensees. For clarity, IDA requires OpenNet to propose, for IDA's approval, modifications to clause 11.8 to state that clauses 11.8(a)-(c) will also apply to joint investigations under clause 11.10. [ON 11 Apr 12 : Amended as per IDA's Direction.]

- (a) In the event that a particular fault is due to OpenNet or its contractors, OpenNet shall not impose any charge on the Requesting Licensee for access to the Co-Location Space (where applicable), regardless of whether it is an OpenNet-initiated fault identification coordination meeting or a Requesting Licensee-initiated joint investigation process. In addition, OpenNet shall not impose the joint investigation charge on the Requesting Licensee even if the fault identification process is initiated by the Requesting Licensee.
- (b) In the event that a particular fault is due to the Requesting Licensee or its contractors or its End-Users, OpenNet shall be entitled to impose a charge on the Requesting Licensee for access to the Co-Location Space (where applicable), regardless of whether it is an OpenNet-initiated fault identification coordination meeting or an Requesting Licensee-initiated joint investigation process. In addition, OpenNet shall also be entitled to impose the joint investigation charge on the Requesting Licensee if the fault identification process is initiated by the Requesting Licensee.
- (c) In the event that it is agreed that a particular fault is not due to OpenNet (or its contractors) or the Requesting Licensee (or its contractors or End-Users),

OpenNet shall be entitled to impose a charge on the Requesting Licensee for access to the Co-Location Space (where applicable) only if it is an Requesting Licensee-initiated joint investigation process. In addition, OpenNet shall also be entitled to impose the joint investigation charge on the Requesting Licensee if the process was initiated by the Requesting Licensee.

CLAUSE 11.8(d) – MODIFICATION REQUIRED

(d) Except for (a) above, if it is discovered that any part of the Network located ~~in~~ on the Non-Residential Premise is damaged, OpenNet shall impose the Requesting Licensee shall be liable to OpenNet for the relevant charges in accordance to Schedule 15 (Charges) accordingly to the End-User unless the damage is caused by the Requesting Licensee.

IDA Directed Modifications: Comments were received that as OpenNet is solely responsible for its Network, any damage to OpenNet’s Network in the Non-Residential Premise is beyond the Requesting Licensee’s or Retail Service Provider’s control.

In this regard, IDA agrees that since the Requesting Licensee and its contractors are not permitted to tamper with or repair any part of the Network located on the Non-Residential Premise, there is no basis for Requesting Licensee to be made liable to OpenNet for such damage to the Network, unless it can be proven that Requesting Licensee had caused the damage.

In view of the above, IDA requires OpenNet to deal with the End-User directly for any damage to the Termination Point unless such damage is caused by the Requesting Licensee. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modification to clause 11.8(d) to comply with the above requirement. [ON 11 Apr 12 : Amended as per IDA’s Direction.]

11.9 The Non-Residential End-User Connection is deemed to be restored when OpenNet has tested and confirmed to the Requesting Licensee that the Non-Residential End-User Connection has been restored. The OpenNet Platform will notify the Requesting Licensee with the cause of fault.

CLAUSE 11.10 – MODIFICATION REQUIRED

11.10 Where the Requesting Licensee has lodged with OpenNet a fault report and OpenNet is in the process of investigating the fault or where the Requesting Licensee has not lodged a fault report but suspect that there is a fault on the Non-Residential End-User Connection, the Requesting Licensee may request OpenNet for a joint investigation. The Requesting Licensee shall propose the date, time and venue for the joint investigation. Under such circumstances, OpenNet shall attend the joint investigation and charge the Requesting Licensee the Joint Investigation Charge according to Schedule 15 (Charges) if the fault is not with OpenNet, otherwise OpenNet will waive the Joint Investigation Charge. Additionally, where the Requesting Licensee disputes OpenNet's findings, the Requesting Licensee shall request OpenNet for a joint investigation. Subject to OpenNet's resource availability and agreement to the date, time and venue, ~~OpenNet shall attend the joint investigation and charge the Requesting Licensee the Joint Investigation Charge according to Schedule 15 (Charges). Where the Requesting Licensee changed the appointment for the joint investigation without giving OpenNet sufficient notice of at least one (1) Business Day, the Requesting Licensee shall pay OpenNet the Missed Appointment Charge in accordance with Schedule 15 (Charges).~~ the The process for a joint investigation shall be as described in clause 11.7. Clauses 11.8(a) to (c) will also apply to joint investigations under clause 11.10. Additionally, where the Requesting Licensee disputes OpenNet's findings, the Requesting Licensee may request OpenNet for a fault identification coordination meeting.

IDA Directed Modifications: IDA refers OpenNet to its directed modifications to clause 11.8 above. For consistency, IDA directs OpenNet to propose, for IDA's approval, modifications to state that clauses 11.8(a)-(c) will apply to joint investigations under clause 11.10.

[ON 11 Apr 12 : Amended as per IDA's Direction.]

While IDA agrees that there should be a process available for Requesting Licensees to raise any disagreements with the findings of OpenNet's fault investigations, IDA disagrees that such a process should be treated as a joint investigation process. IDA's view is that it is more reasonable for OpenNet to resolve such disagreement through the fault identification coordination meeting. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 11.10 to provide for the above process. [ON 11 Apr 12 : Amended as per IDA's Direction].

Further, IDA refers OpenNet to section 12 of the Explanatory Memorandum to this Direction. Accordingly, IDA directs OpenNet to

propose, for IDA's approval, modifications to clause 11.10 in the manner specified therein. Without limitation to the above, OpenNet should remove all references to Missed Appointment Charges. [ON 11 Apr 12 : Amended as per IDA's Direction].

11.11 Where the joint investigation shows that the fault is not due to the Requesting Licensee's network, OpenNet shall delay the billing start date for such Non-Residential End-User Connection to the time such fault is rectified. In the event that the joint investigation team encounters a delay in fault rectification due to the applicable circumstances stated in Clause 2.6 above, the billing start date shall be adjusted to exclude the delays attributable to the applicable circumstances in Clause 2.6. For the avoidance of doubt, this Clause 11.10 shall only apply to faults reported by the Requesting Licensee when the Requesting Licensee's installation of its equipment takes place within seven (7) calendar days (excluding Sundays and Public Holidays) from OpenNet's handover of the First Termination Point to the Requesting Licensee.

11.12 The Requesting Licensee acknowledges that OpenNet may temporarily disconnect the Requesting Licensee's Non-Residential End-User Connection to perform reasonable fault analysis and line testing on the Non-Residential End-User Connection. OpenNet shall conduct such disconnection only as it reasonably considers necessary. OpenNet shall notify the Requesting Licensee at least (thirty (30) minutes before the temporary disconnection and provide its reasons for the temporary disconnection.

11.13 Each Party shall maintain and store its own records of faults and repairs.

Mean Time To Recovery

11.14 OpenNet shall restore any fault within a standard Mean Time To Recovery (**MTTR**) of eight (8) hours.

11.15 Subject to clause 2.6, the MTTR shall be the average time OpenNet took to restore service for all fault incidents for all Non-Residential End-User Connections acquired by the Requesting Licensee under this Schedule during a month, measured from the time each fault is reported by the Requesting Licensee to the time OpenNet confirms that the fault is restored, excluding fault incidents where OpenNet is prevented or restricted from restoring the service owing to matters that are not within OpenNet's control. For the avoidance of doubt, the MTTR is calculated as follows:

$$\frac{\sum X}{Y}$$

Where X = Time taken to restore fault incidents for each Non-Residential End-User Connection during a month as described above

Y = Total number of affected Non-Residential End-User Connections in the same month

11.16 In the event OpenNet fails to meet the standard MTTR for a particular month, OpenNet shall compensate the Requesting Licensee an MTTR Rebate equal to the difference between the MTTR experienced by the Requesting Licensee and the standard MTTR in terms of number of days, multiplied by the number of services affected, multiplied by the Weekly Recurring Charge for the Non-Residential End-User Connection, subject to a maximum of 30 times the Weekly Recurring Charge for the Non-Residential End-User Connection.

11.17 Where the service affected is on a one (1) month minimum contract term, OpenNet shall compensate the Requesting Licensee an MTTR Rebate equal to the difference between the MTTR experienced by the Requesting Licensee and the standard MTTR in terms of number of days, multiplied by the number of one month short term services affected, multiplied by the daily recurring charge for the Non-Residential End-User Connection, subject to a maximum of 50% of the monthly recurring charge for the Non-Residential End-User Connection, where

Daily Recurring Charge = Monthly Recurring Charge (1 month contract) / 30

12. SERVICE LEVEL AVAILABILITY

12.1 OpenNet shall offer a service level availability of 99.99% per month for the Non-Residential End-User Connection. OpenNet shall offer to rebate the Requesting Licensee ten percent (10%) of the Monthly Recurring Charge if OpenNet fails to meet the service level availability for that month.

12.2 Service level availability for the Non-Residential End-User Connection is calculated as follows:

$$\frac{(A - B)}{(A)} \times 100\%$$

Where $A = 24 \text{ hours} \times \text{number of days for the month (in hours)}$; and

$B = \text{total network outage time for the Non-Residential End-User Connection in the same month (in hours)}$

- 12.3 Subject to clause 2.6, the total network outage time is the sum of all minutes for which the Requesting Licensee Non-Residential End-User Connection is unavailable measured from the time each fault is reported by the Requesting Licensee to the time OpenNet confirms that the fault is restored, excluding fault incidents where OpenNet is prevented or restricted from restoring the service owing to matters that are not within OpenNet's control.

13. PROTECTION AND SAFETY

- 13.1 Each Party is responsible for the safe operation of its Network and in particular the safe operation of any equipment within its Network on its side of the connection at the designated Central Office and the Non-Residential Premise.

- 13.2 Each Party shall, so far as reasonably practicable, take all necessary steps to ensure that the licence of the Non-Residential End-User Connection, its operations and its implementation of this Schedule:

- (a) do not endanger the safety or health of any person, including the employees and contractors of the Parties; and
- (b) do not damage, interfere with or cause any deterioration in the operation of the OpenNet Network.

14. TERM OF LICENCE

CLAUSE 14.1 – APPROVED

- 14.1 The minimum contract term for a Non-Residential End-User Connection shall be one (1) month or twelve (12) months, as the case may be, starting from the service activation date of the Non-Residential End-User Connection.

15. SUSPENSION

- 15.1 OpenNet may suspend the Requesting Licensee's licence to the Non-Residential End-User Connection at any time until further notice to the Requesting Licensee if the

Non-Residential End-User Connection licence causes or is likely to cause physical or technical harm to any telecommunications network, system or services (whether of OpenNet or any other person) including but not limited to causing damage, interfering with or causing deterioration in the operation of the OpenNet Network. If the suspension is the result of the Requesting Licensee's fault, the Requesting Licensee shall continue to pay the Monthly Recurring Charge during the period of suspension.

- 15.2 Without limiting the exclusions or limitations of liability in this ICO Agreement, OpenNet shall not be liable to the Requesting Licensee for any Loss resulting from, or in connection with, suspension of a Non-Residential End-User Connection licence under this clause 15.

16. TERMINATION OF LICENCE

- 16.1 The Requesting Licensee shall keep OpenNet informed on the Requesting Licensee's utilisation of each Non-Residential End-User Connection six (6) months from the service activation date and when there are changes to the utilisation.

- 16.2 The Requesting Licensee must use or activate a service to a Retail Service Provider using the Non-Residential End-User Connection within six (6) months from the service activation date of the Non-Residential End-User Connection. If the Requesting Licensee fails to do so, OpenNet will deactivate the Non-Residential End-User Connection upon giving the Requesting Licensee ten (10) Business Days prior notice, and the Requesting Licensee did not dispute such written notice given by OpenNet. The Requesting Licensee must pay OpenNet the Monthly Recurring Charges for the remainder of the minimum contract term.

- 16.3 OpenNet may immediately terminate a licence of Non-Residential End-User Connection under this Schedule if:

- (a) the Requesting Licensee is no longer an FBO;
- (b) the OpenNet ICO is revoked by the Authority under clause 12.8 of the ICO Agreement;
- (c) the Authority removes the requirement for OpenNet to supply Non-Residential End-User Connection under the OpenNet ICO or exempts OpenNet from supplying Non-Residential End-User Connection under the ICO Agreement, provided that the date of termination shall not be earlier than the effective date of the Authority's decision;

- (d) in OpenNet's reasonable opinion, the Requesting Licensee is using the Non-Residential End-User Connection in contravention of an applicable law, licence, code, regulation or direction and OpenNet has the necessary confirmation from the relevant Government Agencies that the Requesting Licensee is in contravention of the applicable law, licence, code, regulation or direction;
- (e) in OpenNet's reasonable opinion, the Requesting Licensee is using the Non-Residential End-User Connection in a manner which places or allows a Third Party to act in contravention of an applicable law, licence, code, regulation or direction and OpenNet has the necessary confirmation from the relevant Government Agencies that the Third Party is in contravention of the applicable law, licence, code, regulation or direction;
- (f) the Non-Residential End-User Connection is used other than the purposes specified in clause 1;
- (g) the licence in respect of Co-Location Space to which the Non-Residential End-User Connection is connected has been terminated or has expired;
- (h) the Non-Residential End-User Connection has become unsafe for its purpose;
or
- (j) OpenNet's right to own, maintain or operate the Non-Residential End-User Connection has been revoked or terminated or has expired.

16.4 Either Party (**Terminating Party**) may terminate the Non-Residential End-User Connection:

- (a) if the other Party is in breach of this Schedule other than failure to pay any sum for which the Requesting Licensee has been invoiced, and such breach remains un-remedied for a period of sixty (60) Calendar Days after receiving notice from the Terminating Party;
- (b) if the Requesting Licensee's Non-Residential End-User Connection licence has been suspended pursuant to clause 15.1, and the cause of such suspension has not been remedied or rectified for a period of sixty (60) Calendar Days from the date of the suspension; or
- (c) if the Requesting Licensee is in breach of this Schedule by its failure to pay any sum for which the Requesting Licensee has been invoiced, and such

breach remains un-remedied for a period of fourteen (14) Calendar Days after receiving notice from the Terminating Party. For the avoidance of doubt, this sub-clause shall not apply pending the resolution of any Billing Dispute in accordance with the provisions of Schedule 16 (Billing).

16.5 Upon termination of the licence of Non-Residential End-User Connection:

- (a) the Requesting Licensee must immediately discontinue the use of the Non-Residential End-User Connection; and
- (b) the Requesting Licensee must without undue delay disconnect all equipment connected to the Non-Residential End-User Connection; and
- (c) OpenNet shall be responsible for removing all necessary Patching Services at the Requesting Licensee's cost in accordance with Schedule 15 (Charges). Notwithstanding the above, the Requesting Licensee will not be liable for OpenNet's costs of removing all necessary Patching Services, if the termination is the result of OpenNet's fault.

16.6 If the licence of a Non-Residential End-User Connection is terminated as a result of the Requesting Licensee's fault, the Requesting Licensee shall be liable to OpenNet for the Monthly Recurring Charges for the remainder of the minimum contract term.

CLAUSE 16.7 – MODIFICATION REQUIRED

16.7 If the Requesting Licensee fails to disconnect its equipment from the Non-Residential End-User Connection under clause 16.65(b), OpenNet may at its sole discretion remove and/or dispose of the Requesting Licensee's equipment. The Requesting Licensee shall pay to OpenNet all reasonable costs associated with the work undertaken by OpenNet including the cost of disposing the Requesting Licensee's equipment. The Requesting Licensee shall have no claim whatsoever against OpenNet in connection with the removal and/or disposal of the Requesting Licensee's equipment from the Non-Residential End-User Connection.

IDA Directed Modifications: IDA notes that the reference to clause 16.6(b) is incorrect, as the relevant clause providing for disconnection of equipment from the Non-Residential End-User Connection is clause 16.5(b). Accordingly, IDA directs OpenNet to correct this referencing error. JON 11 Apr 12 : Amended as per IDA's Direction.

17. REDUNDANCY SERVICE

17.1 The Requesting Licensee may acquire:

- (a) for a Non-Residential End-User Connection of 1:16 Split Ratio for the purpose of providing GPON services, one separate fibre strand from OpenNet's splitter at the Building MDF Room to the First Termination Point of the Non-Residential Premise (subject to clauses 6.3 and 6.4) or otherwise to the FTTB Node of the Non-Residential Premise where OpenNet's network ends;
- (b) for a Non-Residential End-User Connection of 1:16 Split Ratio for the purpose of providing OE services, one separate fibre strand from OpenNet's FDF at the Building MDF Room to the First Termination Point of the Non-Residential Premise (subject to clauses 6.3 and 6.4) or otherwise to the FTTB Node of the Non-Residential Premise where OpenNet's network ends; or
- (c) for a Non-Residential End-User Connection of 1:1 Split Ratio , one separate fibre strand from OpenNet's FDF at the CO to the First Termination Point of the Non-Residential Premise (subject to clauses 6.3 and 6.4) or otherwise to the FTTB Node of the Non-Residential Premise where OpenNet's network ends

(**Redundancy Service**) at the same prices, terms and conditions as the Non-Residential End-User Connection, through a request in the form of Annex 2A either manually or via the OpenNet Platform, unless stipulated otherwise in this clause 17.

17.2 OpenNet shall provide the Redundancy Service via the same duct and along the same path as the existing Non-Residential End-User Connection, without Duct Diversity and without Path Diversity. OpenNet may provide the Redundancy Service using a separate fibre strand from the same fibre cable that carries the existing Non-Residential End-User Connection.

17.3 The Requesting Licensee is eligible to acquire a Redundancy Service for the Non-Residential End-User Connection provided that the Requesting Licensee has acquired or is acquiring an equivalent Non-Residential End-User Connection to the same Non-Residential Premise. The Requesting Licensee may request OpenNet to reject the Request for the Non-Residential End-User Connection in the event that OpenNet is unable to provide the Redundancy Service, but such Requests for the Non-Residential End-user Connection and the Redundancy Service must be submitted together to OpenNet.

17.4 The Requesting Licensee shall be responsible, at its own cost and equipment, for the implementation of diversity or redundancy for its services using the Redundancy Service provided by OpenNet.

17.5 OpenNet shall make the Redundancy Service available to the Requesting Licensee, except where OpenNet is unable to build the requisite infrastructure (other than fibre) to provide the Redundancy Service or due to any of the reasons stated in clause 5.4.

18. RELOCATION SERVICE

CLAUSE 18.1 – MODIFICATION REQUIRED

18.1 The Requesting Licensee may request to relocate the End-User Connection for an End-User to the End-User's new or other non-residential address (**Relocation Service**) ~~through a request in the form of Annex 1A via the OpenNet Platform when available~~, giving, amongst others, the following information:

IDA Directed Modifications: Comments were received that it is unclear from OpenNet's proposed changes whether all applications for Relocation Services must be submitted via the manual form. In the interests of efficiency and for clarity, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 18.1 to clarify that Relocation Services can be requested via the Platform and B2B transactions. [ON 11 Apr 12 : Amended as per IDA's Direction.]

- i. The ~~Order Request Identifier unique reference number~~ of existing connection at old Non-Residential Premise
- ii. Service activation date at new Non-Residential Premise

CLAUSE 18.1(iii) – MODIFICATION REQUIRED

~~iii. NRIC/FIN/Passport Number of the End-User~~

IDA Directed Modifications: Several industry respondents have commented that the NRIC/FIN/Passport Number of the End-User is currently not required, and therefore OpenNet should similarly not require the NRIC/FIN/Passport Number of the End-User to be provided in respect of requests for Relocation Services. A respondent also raised the issue of maintaining customer privacy. IDA agrees with the comments provided and accordingly directs OpenNet to propose, for

IDA's approval, modifications to clause 18.1 to remove the requirement proposed by OpenNet in clause 18.1(iii).

~~iv.iii.~~ All applicable supporting documents evidencing that the Request for Relocation is at the request of or for the benefit of one End-User.

CLAUSE 18.2 – MODIFICATION REQUIRED

18.2 Subject always to the terms of this Schedule, OpenNet shall provide the Relocation Service by ~~activating a deactivation of the existing new~~ Non-Residential End-User Connection ~~at the new Non-Residential Premise in accordance to clause 6, followed by deactivation of the existing –and activate a new~~ Non-Residential End-User Connection at the ~~former new~~ Non-Residential Premise. The expiry date of the minimum contract term ~~which will be computed from the initial Request~~ remains unchanged.

IDA Directed Modifications: An industry respondent commented that there do not appear to be any Service Level Guarantees for Relocation Services. As such, the timeframe for the provision of Relocation Services is unclear. IDA considers that it would be useful for Service Level Guarantees and provisioning timeframes for Relocation Services to be specified. At a minimum, OpenNet shall provide SAP remedy for the activation of the service at the new Non-Residential Premise. Accordingly, IDA directs OpenNet to propose, for IDA's approval, the modifications to clause 18.2 to clarify:

- (a) when OpenNet shall deactivate the connection at the previous premise; and***
- (b) at a minimum, that the SAP framework and the remaining terms shall apply for the activation of the connection at the new premise, save that the minimum contract term is computed from the date of the initial order and that the expiry date of the minimum contract term remains unchanged.***

CLAUSE 18.3 – MODIFICATION REQUIRED

18.3 ~~For the avoidance of doubt, each Every~~ Request for Relocation Service shall constitute ~~one (1) two (2)~~ Requests for ~~Basic Mandated Services and Layer 1 Redundancy Services, ie. a Request for Deactivation of~~ Non-Residential End-User Connection ~~and a Request for Non-Residential End-User Connection, both~~ of which must fall within the Maximum Quota.

IDA Directed Modifications: Comments were received that the Relocation Service absorbs the OpenNet quota at twice the rate of standard orders, and there is no justification for this since the additional work to be performed by OpenNet is negligible. IDA considers that the relocation of service should not take up more than one quota since deactivation of service currently is not part of OpenNet's quota. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 18.3 to state that such Relocation Services should not take up more than one quota.

CLAUSE 18.4 – MODIFICATION REQUIRED

18.4 The Requesting Licensee shall make payment of the applicable charges for every Request for Relocation Service which includes charges ~~for charges~~ for Relocation Service, Installation and Patching in the CO and MDF Room in accordance to Schedule 15 (Charges), where applicable. A Cancellation Charge as set out in Schedule 15 (Charges) shall be applicable if the Requesting Licensee cancels the Request for Relocation Service after acceptance by OpenNet. A change in the End-User's new Non-Residential Premise address constitute a cancellation.

IDA Directed Modifications: IDA noted that there is a typographical error in 2 line of clause 18.4 (i.e., include charges for charges for Relocation). Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 18.4 to correct the error. [ON 11 Apr 12 : Amended as per IDA's Direction.]

IDA also refers OpenNet to section 2 of the Explanatory Memorandum to this Direction. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 18.4 as set out in section 2 of the Explanatory Memorandum. [ON 11 Apr 12 : Amended as per IDA's Direction.]

18.5 At all times, the Requesting Licensee shall be solely responsible for the relocation of its services to the End-User arising from the Request for Relocation Service.

CLAUSE 19 – MODIFICATION REQUIRED

IDA Directed Modifications: Comments were received that it is unclear from clause 19 what process an Requesting Licensee should follow to verify that they are requesting for an additional Termination Point. IDA agrees that there is merit to clarify on the above. Comments were also received that an Requesting Licensee should not be required to submit a separate order for additional Termination Point at the same premises, as

such Request for additional Termination Point should be part of the original Request for a Non-Residential End-User Connection. IDA agrees that this would promote efficiency. IDA also refers OpenNet to the directed modifications under clause 5.3(e) above

Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 19 to (a) clarify that a separate order would not be necessary for the installation of the Additional Termination Point; and (b) ensure consistency with directed modifications to clause 5.3(e).

19. ADDITIONAL TERMINATION POINTS

19.1 The Requesting Licensee may acquire:

- a. for a Non-Residential End-User Connection of 1:16 Split Ratio for the purpose of providing GPON services, one separate fibre strand from OpenNet's splitter at the Building MDF Room to the Additional Termination Point of the Non-Residential Premise (subject to Clauses 6.3 and 6.4) or otherwise to the FTTB Node of the Non-Residential Premise where OpenNet's network ends;
- b. for a Non-Residential End-User Connection of 1:16 Split Ratio for the purpose of providing OE services, one separate fibre strand from OpenNet's FDF at the Building MDF Room to the Additional Termination Point of the Non-Residential Premise (subject to Clauses 6.3 and 6.4) or otherwise to the FTTB Node of the Non-Residential Premise where OpenNet's network ends;
or
- c. for a Non-Residential End-User Connection of 1:1 Split Ratio, one separate fibre strand from OpenNet's FDF at the CO to the Additional Termination Point of the Non-Residential Premise (subject to Clauses 6.3 and 6.4) or otherwise to the FTTB Node of the Non-Residential Premise where OpenNet's network ends

on the same terms and conditions as the Non-Residential End-User Connection ~~through a request in the form of Annex 2A via the OpenNet Platform when available,~~ unless stipulated otherwise in Clause 19.

~~19.2 — OpenNet shall have the right to reject a Request for Additional Termination Point if all the fibre of the First Termination Point are not in use.~~

CLAUSE 19.3 – MODIFICATION REQUIRED

19.3 The Requesting Licensee shall pay OpenNet the applicable Installation Charges for Additional Termination Point ~~and Patching Charge~~ specified in Schedule 15

(Charges) for provisioning the Non-Residential End-User Connection for each Additional Termination Point.

IDA Directed Modifications: IDA refers OpenNet to section 2 of the Explanatory Memorandum to this Direction. Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to clause 19.3 as set out in section 2 of the Explanatory Memorandum.

20. Termination Point in the Vertical Telecommunication Riser

20.1 Where the Requesting Licensee elects to initiate the Non-Residential End-User Connection starting from the Termination Point in the vertical telecommunication riser on the same floor where the Non-Residential Premise is located, the Requesting Licensee shall perform all the necessary work to provision its services and be responsible from the Termination Point in the vertical telecommunication riser to the Non-Residential Premise served. For avoidance of doubt, this Termination Point in the vertical telecommunication riser can only be used to serve a Non-Residential End-User Premise. OpenNet shall retain the responsibility for all works at OpenNet's FDF at the Central Office, Building MDF Room and FTTB Node, including Patching Service at each of the aforesaid location in accordance with Schedule 13 on Patching Services. The Requesting Licensee shall bear the Charges for such works carried out by OpenNet.

20.2 Where the Requesting Licensee requests Non-Residential End-User Connection for the purpose of providing OE services to the End-User, OpenNet will provide the necessary Patching Service at OpenNet's FDF in the Building MDF Room. The Requesting Licensee shall provide its own Patch Cable.

ANNEX 2A – MODIFICATION REQUIRED

IDA Directed Modifications: IDA refers OpenNet to its directed modifications under clause 18.1(iii) of Schedule 2 above. Accordingly, IDA directs OpenNet to propose, for IDA’s approval, modifications to Annex 2A to reflect IDA’s requirements in its directed modifications to clause 18.1(iii) as above. ION 11 Apr 12: Amended as per IDA’s Direction.

Request Form for Non-Residential End-User Connection		
Requesting Licensee	Please Tick only one option: <input type="checkbox"/> Relocation Service from one Non-Residential Address to another Non-Residential Address <input type="checkbox"/> New End-User Connection	
	<i>For Request for Relocation Service from one Non-Residential Address to another Non-Residential Address, please provide:</i> Order Identification Number (ORI) of existing connection: _____	
	Date of Application: _____ Requested Date of Activation: _____ Preferred Installation Session*: AM/PM (if applicable)	Application Reference Number: _____
	Non-Residential End-User Name: _____ Residential End User Business Registration no.: _____	Non-Residential End-User Telephone Number: _____
	Non-Residential End-User <u>Installation</u> Address: _____	
	<i>For NEW connection, please select:</i> Split Ratio: 1:1 / 1:16 Technology: GPON / OE (only applicable for 1:16 Split Ratio) (Change of Split ratio is not allowed for <i>Relocation Service from one Non-Residential Address to another Non-Residential Address</i>)	In-building wiring to First Termination Point: self provide / request OpenNet to install
	Term of Licence : <input type="checkbox"/> One (1) month / <input type="checkbox"/> Twelve (12) months	
	Any other info: _____ <input type="checkbox"/> Redundancy Service is required <input type="checkbox"/> Request for Non-Residential End-User Connection to be rejected if Redundancy Service is not available	

For and on Behalf of Requesting Licensee

Requesting Licensee	Sign: _____	Company Stamp: _____
	Name: _____	Company Name: _____
	Designation: _____	
	Contact Number, Fax and email address: _____	

Part 1: Date: _____

O pe	<input type="checkbox"/> Application accepted: Circuit Identification Number: _____
---------	--


ANNEX 2A: REQUEST FORM FOR NON-RESIDENTIAL END-USER CONNECTION

	Tentative Provision Date : _____		Able to provide in-building wiring to First Termination Point (Y/N)	
	<input type="checkbox"/> Application rejected Reason for rejection: _____			
	OpenNet Name / Signature: _____		Queue Status: _____	

Part 2: Date: _____

OpenNet	<input type="checkbox"/> Circuit Provision: _____		Revised Provision Date (where applicable): _____	
	Reason: _____		Any other reason: _____	
	<input type="checkbox"/> Application rejected Reason for rejection: _____			
	OpenNet Name / Signature: _____			

ANNEX 2B: FAULT RECTIFICATION SERVICE REPORT

 WHERE POSSIBLE (Measured by ON) Service Report								
Appointment Date: Time:	Arrival Time: Completion Time:							
Trouble Ticket No:	<input type="checkbox"/> 1 hour activation <input type="checkbox"/> Maintenance Fault Rectification <input type="checkbox"/> Follow up end-user appointment							
END-USER INFORMATION								
Authorised Person Name:	*Mr/Mrs/Miss/Mdm/Dr							
*NRIC/FIN/Passport No:								
Contact no:	(HP):							
Company:	BRN:							
Registered Address:	Blk/House: _____ Unit No: # _____ - _____ Street Name: _____ Building Name: _____ Postal code: S(_____)							
LOCATION OF INSTALLATION								
A-END (CO/MDF)	B-END (CO/MDF, End-User's Premise)							
Blk/House: _____ Unit No: # _____ - _____	Blk/House: _____ Unit No: # _____ - _____							
Street Name: _____	Street Name: _____							
Building Name: _____ Postal code: S(_____)	Building Name: _____ Postal code: S(_____)							
End-User Declaration (check only one box)								
<input type="checkbox"/> I am the owner of the above premises <input type="checkbox"/> I, Name: _____, NRIC _____ am authorised by the owner of the premise and/or the above-stated company to sign this form and permit OpenNet Pte Ltd or its contractor to enter the premises and conduct the fault rectification work. I will bear full responsibility if the owner should dispute (a) my authority, or (b) any action taken by OpenNet Pte Ltd at my instructions.								
Company Stamp (if applicable):								
For Official Use Only								
OPTICAL MEASUREMENTS, WHERE POSSIBLE (Measured by RL)								
Fault description:								
Test Measurement (CO to Serving Cabinet):	<table border="1"> <tr> <td>1310nm</td> <td></td> <td>1490nm</td> <td></td> <td>1550nm</td> <td></td> <td>Distance (m)</td> </tr> </table>	1310nm		1490nm		1550nm		Distance (m)
1310nm		1490nm		1550nm		Distance (m)		
Test Measurement (CO to 1 st TP):	<table border="1"> <tr> <td>1310nm</td> <td></td> <td>1490nm</td> <td></td> <td>1550nm</td> <td></td> <td>Distance (m)</td> </tr> </table>	1310nm		1490nm		1550nm		Distance (m)
1310nm		1490nm		1550nm		Distance (m)		
Test Measurement (Segment Services A-END to B-END)	<table border="1"> <tr> <td>1310nm</td> <td></td> <td>1490nm</td> <td></td> <td>1550nm</td> <td></td> <td>Distance (m)</td> </tr> </table>	1310nm		1490nm		1550nm		Distance (m)
1310nm		1490nm		1550nm		Distance (m)		
Certified by ON:								
Technician Name:	Date:							
Technician Signature:	Time:							

ANNEX 2B: FAULT RECTIFICATION SERVICE REPORT

Fault description:							
Test Measurement (CO to Serving Cabinet):	1310nm		1490nm		1550nm		Distance (m)
Test Measurement (CO to 1st TP):	1310nm		1490nm		1550nm		Distance (m)
Test Measurement (Segment Services A-END to B-END)	1310nm		1490nm		1550nm		Distance (m)
Certified by :							
RL Name:				Date:			
RL Signature:				Time:			
Fault Root Cause Description							
ACTION TAKEN/ADDITIONAL REMARKS							
CUSTOMER ACKNOWLEDGEMENT AND ACCEPTANCE							
Remarks/Comments:							
This is to acknowledge that the fibre fault rectification has been attended and the fault resolution is effective							
Fault Attended by:				Resolution Accepted by End-User:			
Technician Name:				End-User Signature:			
Technician Signature:							
Resolution Verified and Accepted by RL (Only applicable for <u>1 hour activation</u>) :							
RL Name:				RL Signature:			

End-Users can refer to their retail service providers for more information to address and resolve any end-user service related issues.

*Please delete where inapplicable

ANNEX 2B – MODIFICATION REQUIRED

IDA Directed Modifications: Comments were received in respect of the “Declaration” section of Annex 2B that the Requesting Licensee should not be the party permitting OpenNet to enter the End-User’s premise. IDA agrees that the “Declaration” section is intended for the End-User to make the declaration

and not the Requesting Licensee. [ON 11 Apr 12 : Amended as per IDA's Direction.]

Several industry respondents have commented that the NRIC/FIN/Passport Number of the End-User is currently not required, and therefore OpenNet should similarly not require the NRIC/FIN/Passport Number of the End-User to be provided. A respondent also raised the issue of maintaining customer privacy. IDA agrees with the comments provided and agrees that OpenNet should not require Requesting Licensee/End-User to provide the NRIC/FIN/Passport Number of the End-User. Similarly, IDA also holds the view that company's BRN is not necessary. [ON 11 Apr 12 : Amended as per IDA's Direction.]

Accordingly, IDA directs OpenNet to propose, for IDA's approval, modifications to Annex 2B to reflect the above requirements.