# **APPENDIX 8**

REQUIRED MODIFICATIONS TO SCHEDULE 7 FTTB NODE TO DP CONNECTION **SCHEDULE 7** 

# FTTB NODE TO DP CONNECTION

Note: Unless otherwise specified in IDA's Directed Modifications in the Explanatory Memorandum and other IDA Directed Modifications in other parts of the Direction (including Schedule 7 – FTTB Node to DP Connection), NetLink Trust's proposed modifications to Schedule 7 – FTTB Node to DP Connection are approved.

# SCHEDULE 7

## FTTB NODE TO DP CONNECTION

## CONTENTS

1.	SCOPE	1			
2.	SERVICE LEVEL GUARANTEES	1			
3.	SERVICE DESCRIPTION AND ACCESS POINTS	4			
4.	ORDERING AND PROVISIONING PROCEDURE	4			
5.	FTTB NODE TO DP CONNECTION REQUEST	6			
6.	DELIVERY	8			
7.	RESPONSIBILITY AT <mark>OPENNET<u>NETLINK TRUST</u> FDF</mark>	11			
8.	DEACTIVATION	12			
9.	STANDARD TERMS AND CONDITIONS	12			
10.	ACCESS AND APPROVALS REQUIRED	14			
11.	FAULT REPORTING AND CLEARING	14			
12.	SERVICE LEVEL AVAILABILITY	18			
13.	PROTECTION AND SAFETY	19			
14.	TERM OF LICENCE	20			
15.	SUSPENSION	20			
16.	TERMINATION OF LICENCE	20			
17.	17. REDUNDANCY SERVICE				
AN	NEX 7A: REQUEST FORM FOR FTTB NODE TO DP CONNECTION				
ANNEX 7B: FAULT RECTIFICATION SERVICE REPORT					

#### **SCHEDULE 7**

## FTTB NODE TO DP CONNECTION

## 1. SCOPE

This Schedule 7 sets out the terms and conditions under which <u>OpenNetNetLink</u> <u>Trust</u> will provide the Requesting Licensee with a licence for Layer 1 Service (a service provided by <u>OpenNetNetLink Trust</u> for the use of passive optical fibre cable) from the FTTB Node of a Residential or Non-Residential Building to a Distribution Point in the same Residential or Non-Residential Building (**FTTB Node to DP Connection**).

1.1 This Schedule only applies to Requesting Licensees who are FBOs.

# 2. SERVICE LEVEL GUARANTEES

- 2.1 OpenNetNetLink Trust will provide the Service Level Guarantees in respect of the FTTB Node to DP Connection as set out in this Schedule. If OpenNetNetLink Trust 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 OpenNetNetLink Trust, its contractors and/or suppliers, OpenNetNetLink Trust will provide a remedy in the form of a rebate to the Requesting Licensee in accordance with:
  - Clause 6.10 and any terms and conditions contained in this Schedule in respect of request and provisioning timeframes;
  - (ii) Clause 11.13 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.
- 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. <u>OpenNetNetLink Trust</u> will respond within (30) Calendar Days from date of claim stating whether the claim by Requesting Licensee is: (a) valid for rebates; or (b) is an invalid claim. Where <u>OpenNetNetLink Trust</u> assessed that the Requesting Licensee's claim is invalid, <u>OpenNetNetLink Trust</u> will explain its basis or require the Requesting Licensee to provide additional information. For valid claims submitted within the timeframe, <u>OpenNetNetLink Trust</u> shall provide the rebate in its next Invoice.

- 2.3 If the Requesting Licensee is entitled to a rebate pursuant to the claim made hereunder, the amount of the rebate will be credited into the Requesting Licensee's account after it has been processed by <u>OpenNetNetLink Trust</u> and will be reflected in <u>OpenNetNetLink Trust</u>'s bill to the Requesting Licensee in accordance with <u>OpenNetNetLink Trust</u>'s billing cycle.
- 2.4 The guarantee and rebates provided by OpenNetNetLink Trust are:
  - (i) of an ex-gratia nature and personal to the Requesting Licensee and are nontransferable; and
  - (ii) subject to this Schedule.
- 2.5 Despite anything to the contrary in this section, if the Requesting Licensee qualifies for any claim, <u>OpenNetNetLink Trust</u> 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.

## **CLAUSE 2.6 – MODIFICATION REQUIRED**

- 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 FTTB Node to DP 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 <u>OpenNetNetLink</u> <u>Trust</u>'s fault;
  - (b) fault due to any equipment, wiring and/or cabling owned or operated by the Requesting Licensee or on behalf of the Requesting Licensee;

- (c) provision or restoration of the FTTB Node to DP Connection where any sitecoordination meeting, Joint Investigation Meeting or fault identification coordination meeting is involved, except where (a) the fault was caused by <u>OpenNetNetLink Trust</u>; 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 <u>OpenNetNetLink Trust</u>, the time taken from the start of arranging any sitecoordination meeting, Joint Investigation Meeting or fault identification coordination meeting up to the end of the meeting, shall always be excluded; or
- (d) OpenNetNetLink Trust is unable to obtain or maintain any licence or permission necessary to the provision or restoration of FTTB Node to DP Connection despite using its best endeavours to obtain expeditiously or maintain such licence or permission. Notwithstanding the above, in determining whether the Service Level Guarantees have been met by OpenNetNetLink Trust, the time taken by OpenNetNetLink Trust to obtain or maintain any licence or permission necessary to the provision or restoration of the FTTB Node to DP Connection shall always be excluded. Provided that in the event that the Requesting Licensee raises a dispute as to whether OpenNetNetLink Trust has used its best endeavours to obtain or maintain the licence/permission, OpenNetNetLink Trust will provide evidence that it has used such best endeavours;
- (e) OpenNetNetLink Trust has difficulty accessing to or working in the building due to the building being inaccessible, in unsafe working condition or in any other inadequate or deficient state despite using its best endeavours to expeditiously remedy the building access difficulties, provided always that in the event that the Requesting Licensee raises a dispute as to whether OpenNetNetLink Trust has used its best endeavours, to expeditiously remedy the building access difficulties, OpenNetNetLink Trust will provide evidence that it has used such best endeavours;
- (f) delay in the provision or restoration of the FTTB Node to DP Connection caused by events beyond the reasonable control of <u>OpenNetNetLink Trust</u> and its suppliers and contractors;
- (g) OpenNetNetLink Trust 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 <u>OpenNetNetLink Trust</u>;

#### CLAUSES 2.6(i) – MODIFICATION REQUIRED

 (i) OpenNetNetLink Trust is required to carry out service interruption and the Requesting Licensee has been informed in accordance with clause 9.5 or 9.6 or 9.7; or

IDA Directed Modifications: An industry respondent commented that the reference to clause 9.7 in clause 2.6(i) should be removed as clause 9.7 merely sets out the details of the notification to RLs and does not deal with service interruption. IDA agrees with the comment provided and accordingly directs NetLink Trust to propose, for IDA's approval, modifications to clause 2.6(i) remove NetLink Trust's proposed reference made to clause 9.7.

(j) Where the Requesting Licensee or the MCST requires customised arrangements (eg. non-standard or customised installation) or conditions to be fulfilled (eg. the MCST requires access or the requisite equipment like boomlift, scaffolding, cherry picker etc. for installations) before access is granted to <u>OpenNetNetLink Trust</u> or before <u>OpenNetNetLink Trust</u> can provision its services, but such exclusion shall only be limited to the time taken for access to be granted to <u>OpenNetNetLink Trust</u> or condition is suitable for <u>OpenNetNetLink Trust</u> to provision its services.

Where the applicable event described above is not resolved within two (2) months from the date of submission of the Request for FTTB Node to DP Connection, OpenNet shall consult the Requesting Licensee before OpenNet rejects the Request for FTTB Node to DP Connection.

#### [NLT : Please refer to proposed modifications under clause 6.1 (B).]

IDA Directed Modifications: IDA refers NetLink Trust to Section 2, paragraph 29 of the Explanatory Memorandum. Accordingly, IDA directs NetLink Trust to propose, for IDA's approval, modifications to clause 2.6 to clarify that (a) NetLink Trust shall exercise its best endeavours to resolve any delays before rejecting orders delayed for more than two (2) months; (b) NetLink Trust shall provide clear explanations to RLs on the circumstances surrounding the delays and NetLink Trust's efforts made to resolve the said delays when it consults the RLs before rejecting such orders; (c) NetLink Trust shall consider valid feedback received from the RL prior to any rejection, and where there is any objection from the RL and the RL is able to substantiate the objection with appropriate documentary evidence, NetLink Trust must provide the RL with the additional time necessary to close the order; and (d) the parties continue to have the option to avail themselves of the existing dispute resolution process provided for in the ICO to resolve any dispute regarding NetLink Trust's decision to reject cases delayed beyond two (2) months.

- 2.7 If the Requesting Licensee disputes OpenNetNetLink Trust'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 OpenNetNetLink Trust 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 FTTB Node to DP Connection and shall be <u>OpenNetNetLink Trust</u>'s sole and exclusive liability to the Requesting Licensee for such failure.

## 3. SERVICE DESCRIPTION AND ACCESS POINTS

- 3.1 <u>OpenNetNetLink Trust</u> will provide a licence for the FTTB Node to DP Connection to the Requesting Licensee with the following:
  - (a) one (1) fibre strand from <u>OpenNetNetLink Trust</u>'s Fibre Distribution Frame (FDF) at the FTTB Node to the Distribution Point (DP) in the same Residential or Non-Residential Building if requested by the Requesting Licensee; and
  - (b) one (1) Patching Service at OpenNet<u>NetLink Trust</u>'s FDF at the FTTB Node.
- 3.2 The Requesting Licensee shall access the FTTB Node to DP Connection at OpenNetNetLink Trust's FDF at the FTTB Node and at the DP.

#### 4. ORDERING AND PROVISIONING PROCEDURE

- 4.1 (A) The Requesting Licensee shall submit its request for the FTTB Node to DP Connection (Request) to OpenNetNetLink Trust on a Business Day in the form of Annex 7A stating, but not limited to the following information:
  - (a) the address of the Residential or Non-Residential Premise to be served by the DP.

(B) As an alternative to submitting a Requesting using the form Annex 7A under clause 4.1 (A), the Requesting Licensee may also submit its Request for FTTB Node to DP Connection (Request) to OpenNetNetLink Trust via the OpenNetNetLink Trust Platform, stating, but not limited to the following information:

(a) the address of the Residential or Non-Residential Premise to be served by the DP.

For Request submitted via the Service Portal, the Requesting Licensee shall select an available date. Upon successful submission of the Request via the Service Portal, it will provide a Request acknowledgement.

Alternatively, for Request submitted via the OpenNetNetLink Trust Platform APIs, the Requesting Licensee shall first query the available time slots and use the applicable selected timeslot related for submission of Request. Upon successful submission of the Request via the OpenNetNetLink Trust Platform APIs, it will provide a Request acknowledgement.

- 4.2 Relocation of the FTTB Node to DP Connection is not allowed.
- 4.3 Information relating to the Mandated Services will be available on OpenNetNetLink Trust Platform, for access by the Requesting Licensee through secured means. The secured access to OpenNetNetLink Trust Platform will require payment of a Per User Account Charge (specified in clause 14 of Schedule 15 (Charges)) for each user account created. Information relating to network outages will be sent to the Requesting Licensee via email or OpenNetNetLink Trust Platform. The information relating to the Mandated Services and the information relating to network outages is available on the OpenNetNetLink Trust Platform.

For information related to network outages, <u>OpenNetNetLink Trust</u> shall include the following details in the written notification or via <u>OpenNetNetLink Trust</u> 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) OpenNetNetLink Trust's Network Operations Centre Contact Number.

For the avoidance of doubt, where <u>OpenNetNetLink Trust</u> has imposed a Per User Account Charge on the Requesting Licensee for each user account created to allow the Requesting Licensee to access <u>OpenNetNetLink Trust</u> Public Website, such Per User Account Charge shall not be re-imposed when the information relating to Mandated Services is made available on the <u>OpenNetNetLink Trust</u>'s Service Portal.

# 5 FTTB NODE TO DP CONNECTION REQUEST

5.1 <u>OpenNetNetLink Trust</u> shall process all Requests received for the FTTB Node to DP Connection on a 'first come, first served' basis.

#### **CLAUSE 5.2 – MODIFICATION REQUIRED**

[Enhancement to Current Approach will eventually be replaced by the Long-Term Approach]

5.2 For each Business Day, OpenNetNetLink Trust shall process a combined total of no more than 1125 or such other number (as may be revised from time to time in accordance with clause 5.2(i)) of Requests for Basic Mandated Services and Layer 1 Redundancy Services (Maximum Quota) from all Requesting Licensees, excluding Requests for Non-Residential End-User Connections. For avoidance of doubt, Requesting Licensee is able to select such dates made available from the OpenNetNetLink Trust Platform and for which the Request is to be fulfilled except such Business Day where the Maximum Quota has been reached. OpenNetNetLink

<u>Trust</u> 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 is subject to the review mechanism as described as (i) follows. If OpenNetNetLink Trust finds that, on the average, more than 90% of the Maximum Quota has been used over a period of twelve (12) weeks preceding the review month (namely February, May, August and November ), OpenNetNetLink Trust shall increase its daily Maximum Quota for the quarter in which the review month occurs and the new quota shall be no less than 115% of the average demand over the preceding twelve (12) weeks. If OpenNetNetLink Trust finds that, on the average, less than 80% of the Maximum Quota has been used over a period of twelve (12) weeks preceding the review month (namely February, May, August and November ), OpenNetNetLink Trust may decrease its daily Maximum Quota for the quarter in which the review month occurs and the new quota shall be no less than 110% of the average demand over the preceding twelve (12) weeks. Where applicable, in accordance with the foregoing, the revised prevailing Maximum Quota will take effect upon its publication on the Service Portal following the conclusion of each review. The review mechanism will be revised regularly subject to the Authority's approval.

#### [Long-Term Approach]

5.2 For each Business Day, OpenNet shall process a combined total of no more than 50 or such other number (as may be revised from time to time in accordance with clause 5.2(i)) of Requests for Basic Mandated Services and Layer 1 Redundancy Services (Maximum Quota) from all Requesting Licensees, excluding Requests for Residential and Non Residential End User Connections. 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 is subject to the review mechanism as described as follows. 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 October), OpenNet shall increase its daily quota for the quarter in which the review month occurs and the new quota shall be no less than 110% of the average demand over the preceding twelve (12) weeks. 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 October), OpenNet may decrease its daily quota for the quarter in which the review month occurs and the new quota shall be no less than 110% of the average demand over the preceding twelve (12) weeks. Where applicable, in accordance with the foregoing, the revised prevailing Maximum Quota will take effect upon its publication on the Service Portal following the conclusion of each review. The review mechanism will be revised regularly subject to the Authority's approval.

IDA Directed Modifications: IDA refers NetLink Trust to Section 4 of the Explanatory Memorandum to this Direction. IDA is of the view that the QAM, together with NetLink Trust's proposed enhancements in this ICO review, would be able to effectively assist NetLink Trust in sizing its service provisioning capacity and on a non-discriminatory basis. Accordingly, IDA directs NetLink Trust to propose, for IDA's approval, modifications to clause 5.2 to remove the Long-Term Approach and to retain the Enhancements to Current Approach.

- 5.3 (A) Within one (1) Business Day of the date on which OpenNetNetLink Trust receives the request for FTTB Node to DP Connection (Request Date) and subject to clause 5.2, OpenNetNetLink Trust 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 FTTB Node to DP 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; or
  - (d) the Requesting Licensee has committed a material breach of the ICO Agreement or this Schedule.

(B)(i) As an alternative to clause 5.3(A), where <u>OpenNetNetLink Trust</u> receives a Request for FTTP Node to DP Connection (Request Date) via the <u>OpenNetNetLink</u> <u>Trust</u> Platform, <u>OpenNetNetLink Trust</u> will validate and notify the Requesting Licensee, so that the Requesting Licensee is able to make the necessary corrections in real time, if the Request does not meet any one of the following reasons:

- (a) the Request for FTTB Node to DP 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; or

(B)(ii) Following clause 5.3(B)(i), within one (1) Business Day of the date on which OpenNetNetLink Trust receives the Request via the OpenNetNetLink Trust Platform for FTTB Node to DP Connection (**Request Date**) and subject to clause 5.2, OpenNetNetLink Trust 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 as the Requesting Licensee has committed a material breach of the ICO Agreement or this Schedule.

Where the OpenNetNetLink Trust Platform is experiencing technical problems, OpenNetNetLink Trust shall inform the Requesting Licensee to submit the Requests through fax/email or offer alternative solutions.

- 5.4 Within ten (10) Business Days of the Request Date and subject to clause 5.2, <u>OpenNetNetLink Trust</u> 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:
  - (a) the equipment or services that the Requesting Licensee proposes to use or to provide interfere with, or cause deterioration to services supplied by <u>OpenNetNetLink Trust</u>;
  - (b) there is obstruction from building owner or building management to OpenNetNetLink Trust installation or installation schedule. OpenNetNetLink Trust shall use its best endeavours to resolve such obstructions; or
  - (c) there are security and confidentiality requirements or restrictions imposed on OpenNetNetLink Trust by Government Agencies.
- 5.5 The Requesting Licensee shall pay OpenNetNetLink Trust the applicable Installation Charge specified in Schedule 15 (Charges) for provisioning the FTTB Node to DP Connection.

5.6 Where <u>OpenNetNetLink Trust</u> rejects any Request for the FTTB Node to DP Connection, <u>OpenNetNetLink Trust</u> shall provide reasons explaining the basis for rejection promptly.

## 6. **DELIVERY**

### **CLAUSE 6.1 – MODIFICATION REQUIRED**

6.1 Subject to clauses 5.2, 5.3, 5.4 and 6.2, <u>OpenNetNetLink Trust</u> shall provide the FTTB Node to DP Connection by the end of ten (10) Business Days from the receipt of a valid Request from the Requesting Licensee. 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 <u>on a daily basis</u> on the <u>OpenNetNetLink Trust</u> Platform, when available <u>or via email until the delay is resolved and service is provisioned</u>. For the avoidance of doubt, <u>OpenNetNetLink Trust</u> Platform.

For each Request which could not be provisioned on the requested service activation date, NetLink Trust will provide a report stating the cause of delay (for e.g. resource constraint and network segment) and the estimated timeframe for resolution of the delay and the estimated timeframe for completion of service provisioning. Such report shall be provided, via email to the Requesting Licensee the Business Day after the relevant service activation date.

For orders which have been delayed for more than two (2) months, NetLink Trust will update the Requesting Licensee on a weekly basis, providing clear explanations on the circumstances surrounding the delays, NetLink Trust's best efforts to resolve the said delays and, where applicable, NetLink Trust's intention to reject such orders. Where the Requesting Licensee objects to NetLink Trust's proposed rejection of such orders, the Requesting Licensee must substantiate the objection within three (3) Business Days with the appropriate documentary evidence and, where applicable, provide a timeframe to resolve the delay. NetLink Trust shall proceed to reject the orders where the Requesting Licensee fails to substantiate their objection within 3 Business Days. In the event the Requesting Licensee disputes NetLink Trust's decision to reject such orders, the dispute shall be resolved in accordance with the Dispute Resolution Procedures in Schedule 17 of the ICO Agreement.

In any event, the Requesting Licensee has the option to submit a new Request for the FTTP Node to DP Connection once the cause of delays are resolved.

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IDA Directed Modifications: IDA has received feedback from the industry that the reasons for delay and the estimated/revised resolution timeframes that NetLink Trust publishes on the NetLink Trust Platform are often too generic and non-informative. As a result, the information provided by NetLink Trust through the NetLink Trust Platform does not help RLs, or their respective RSPs, by providing informative updates as to the status of their delayed cases. Further, it was commented that the estimated/revised timeframes provided by NetLink Trust for delayed cases were often non-indicative and far from the actual time taken for resolution, to the extent that RLs and/or RSPs were unable to rely on such timeframes to appropriately explain the delay to their customers. IDA is of the view that it is not acceptable for NetLink Trust to provide RLs with ambiguous information, as this causes confusion on the ground and the RLs and/or RSPs would face challenges when answering their customers, i.e., the end-users, on the service provisioning delays. Further, it is within IDA's expectation and NetLink Trust's ability to provide prompt and to-date updates with regard to the service provisioning status, so that the end-users could better manage their time in preparing for NBN service readiness. Accordingly, IDA directs NetLink Trust to propose, for IDA's approval, modifications to clause 6.1 to clarify that NetLink Trust shall, through the NetLink Trust Platform and/or via other forms of communication such as emails, provide regular updates to the affected RL on the resolution of delayed cases, on each Business Day or more frequently as appropriate, until NetLink Trust resolves the delay and completes the service provisioning.

- 6.2 Where there is insufficient capacity to provide the FTTB Node to DP Connection and additional capacity is required to be installed between the FTTB Node and the DP, OpenNetNetLink Trust shall provide the FTTB Node to DP Connection within ten (10) Business Days from the receipt of a valid Request from the Requesting Licensee.
- 6.3 Where OpenNetNetLink Trust has not rolled out its Network to the DP in the Non-Residential Building, OpenNetNetLink Trust will install in-building enclosure, ducting, cable tray and cabling from the FTTB Node to the DP at an additional charge to the Requesting Licensee as stated in Schedule 15 (Charges) ("Installation of Network Charge"). Provided that OpenNetNetLink Trust has received the necessary approval from and is granted access by the building owner or building management (or such other relevant party) within five (5) Business Days from the Request Date, OpenNetNetLink Trust shall, within six (6) Business Days of the Request Date,

provide a quotation for the Installation of Network Charge. In the event that OpenNetNetLink Trust does not receive the necessary approval or is not granted access within five (5) Business Days of the Request Date, the Request shall be rejected. The quotation for the Installation of Network Charge shall be valid and binding for ten (10) Business Days from the date of the quotation. The Requesting Licensee shall, within ten (10) Business Days from the date of the quotation, inform **OpenNet**NetLink Trust in writing whether it accepts the quotation. If the Requesting Licensee cancels its Request after the site survey has taken place but before OpenNetNetLink Trust has provided the Requesting Licensee with a quotation, or if the Requesting Licensee does not accept the quotation, or if the Requesting Licensee does not (for any reason whatsoever) inform OpenNetNetLink Trust in writing of its acceptance of the quotation within ten (10) Business Days from the date of the quotation, the quotation and the Request shall be deemed cancelled, and the Requesting Licensee shall be liable for and shall pay OpenNetNetLink Trust the Rejection Charge as provided for in Schedule 15. For the avoidance of doubt, if the Requesting Licensee cancels its Request after it has accepted the quotation and OpenNetNetLink Trust has already started work, the Requesting Licensee shall pay OpenNetNetLink Trust the Cancellation Charge as stated in Schedule 15. For avoidance of doubt, the time taken by the building management to consider to grant approval of access to OpenNetNetLink Trust and the time taken by Requesting Licensee to accept the quotation would be excluded from the service provisioning timeframe.

- 6.4 Upon receiving the Requesting Licensee's acceptance of the quotation, OpenNetNetLink Trust shall proceed with the installation of the FTTB Node to DP Connection in accordance with the timeframe provided for in this Schedule 7. Notwithstanding the Requesting Licensee's acceptance of the quotation, OpenNetNetLink Trust shall be entitled to subsequently reject the Request for any of the following reasons:
  - (a) the equipment or services that the Requesting Licensee proposes to use or to provide interfere with, or cause deterioration to services supplied by OpenNetNetLink Trust;
  - (b) there is obstruction from building owner or building management to <u>OpenNetNetLink Trust</u> installation or installation schedule; or
  - (c) there are security and confidentiality requirements or restrictions imposed on OpenNetNetLink Trust by Government Agencies.

- 6.5 Unless otherwise stated, <u>OpenNetNetLink Trust</u> shall retain the responsibility for working at <u>OpenNetNetLink Trust</u>'s FDF at the FTTB Node and the DP, including Patching Service at <u>OpenNetNetLink Trust</u>'s FDF at the FTTB Node in accordance with Schedule 13 (Patching Service). The Requesting Licensee shall bear the Charges for such work carried out by <u>OpenNetNetLink Trust</u>.
- 6.6 OpenNetNetLink Trust will provide the necessary Patching Service at OpenNetNetLink Trust's FDF in the FTTB Node 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, OpenNetNetLink Trust will not offer and the Requesting Licensee shall not request for any rebate or discount over the Patching Service or the FTTB Node to DP Connection.
- 6.7 OpenNetNetLink Trust will 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 FTTB Node to DP Connection.
- 6.8 OpenNetNetLink Trust will test the optical fibre cable from OpenNetNetLink Trust's FDF at the FTTB Node to the DP to ensure that the FTTB Node to DP Connection falls within the specified optical performance. Testing will be conducted at wavelengths of 1310nm, 1490nm and 1550nm.
- 6.9 OpenNetNetLink Trust shall ensure that the optical power loss does not exceed 0.4dB per km and -0.5dB per connector.
- 6.10 If the Requesting Licensee wishes to obtain the optical power readings, the Requesting Licensee shall submit its request furnishing the Order Request Identifier on a Business Day. <u>OpenNetNetLink Trust</u> shall provide the requested information within three (3) Business Days of receipt of such request. The Requesting Licensee shall pay a charge to provide the optical power readings in accordance with Schedule 15 (Charges).
- 6.11 OpenNetNetLink Trust shall promptly notify the Requesting Licensee on the completion of provisioning the FTTB Node to DP Connection.
- 6.12 Subject to clause 6.13, in the event <u>OpenNetNetLink Trust</u> fails to meet the applicable service activation period for a Request, <u>OpenNetNetLink Trust</u> shall compensate the Requesting Licensee an amount equal to the number of days of delay multiplied by the weekly recurring charge for the FTTB Node to DP Connection,

subject to a maximum of 30 times the weekly recurring charge for the FTTB Node to DP Connection (Weekly Recurring Charge), where:

Weekly Recurring Charge = Monthly recurring charge x 7 / 30

- 6.13 OpenNetNetLink Trust 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 to install the required Network within the said building, despite <u>OpenNetNetLink Trust</u> using its best endeavours to obtain expeditiously such permission, provided that in the event that the Requesting Licensee raises a dispute as to whether <u>OpenNetNetLink Trust</u> has used its best endeavours to obtain expeditiously the permission, <u>OpenNetNetLink Trust</u> will provide evidence that it has used such best endeavours;
  - (b) The Requesting Licensee requests the deferment of the service activation date;
  - (c) The building which was initially under network coverage has been reconstructed and <u>OpenNetNetLink Trust</u> has to reinstall its Network within 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 this ICO Agreement (unless otherwise stated), <u>OpenNetNetLink Trust</u> shall nevertheless be required to compensate the Requesting Licensee if it fails to meet the revised implementation timeline.

#### 7. RESPONSIBILITY AT OPENNET<u>NETLINK TRUST</u> FDF

- 7.1 The Requesting Licensee shall not, and shall ensure that its employees, agents and contractors do not, at any time access <u>OpenNetNetLink Trust</u>'s FDF at the FTTB Node and the DP.
- 7.2 Where the Requesting Licensee wishes to change the existing patching connection at OpenNetNetLink Trust's FDF at the FTTB Node, the Requesting Licensee shall submit an application for termination of the existing Patching service and order for a new Patching Service at the FTTB Node in accordance with Schedule 13 (Patching Service).

#### 8. DEACTIVATION

- 8.1 Subject to the minimum contract term, the Requesting Licensee may deactivate the FTTB Node to DP Connection by giving <u>OpenNetNetLink Trust</u> not less than one (1) month prior written notice.
- 8.2 If the FTTB Node to DP Connection 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 <u>OpenNetNetLink Trust</u> one hundred percent (100%) of the Monthly Recurring Charge for the remainder of the minimum contract term.
- 8.3 Where any Patching Service is no longer required as a result of the termination of the FTTB Node to DP Connection, <u>OpenNetNetLink Trust</u> shall remove the Patching Service at all the relevant access points and the Requesting Licensee shall be liable for the termination charges 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 FTTB Node to DP Connection, if such termination is the result of <u>OpenNetNetLink Trust</u>'s fault.

## 9. STANDARD TERMS AND CONDITIONS

- 9.1 OpenNetNetLink Trust shall at its sole discretion determine its network deployment, including but not limited to the access points, fibre cable routing and location of the FTTB Node and DP from which the FTTB Node to DP Connection is provided.
- 9.2 OpenNetNetLink Trust shall be responsible for the maintenance of the FTTB Node to DP Connection 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 <u>OpenNetNetLink Trust</u>'s name, any of <u>OpenNetNetLink Trust</u>'s trademarks or the fact that any service is supplied using <u>OpenNetNetLink Trust</u>'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 OpenNetNetLink Trust's existing services or those of a Third Party as a result of the Requesting Licensee's use of the FTTB Node to DP Connection.

## CLAUSES 9.5 & 9.6 - MODIFICATION REQUIRED

Schedule 7 - FTTB Node to DP Connection

- 9.5 If it is necessary to carry out any planned service interruption, including but not limited to planned repair, or replacement or upgrade to any equipment or facility forming part of the FTTB Node to DP Connection, OpenNetNetLink Trust shall provide the Requesting Licensee with at least four (4) two (2) weeks' notice in advance of such interruptions, repairs or upgrades. In the event the planned service interruption has to be changed, OpenNetNetLink Trust shall provide the Requesting Licensee with no less than one (1) week's twenty four (24) hours' notice. Where, for reasons beyond its control eg. where NetLink Trust receives notifications of less than one (1) week from third parties, NetLink Trust shall notify the Requesting Licensee as soon as practicable and shall inform Requesting Licensee of the period of service interruption according to the principle for urgent service interruption in Clause 9.6. OpenNetNetLink Trust would use its best endeavours shall take reasonable measures to minimise any service disruption to the Requesting Licensee.
- 9.6 If it is necessary to carry out any urgent service interruption, including but not limited to planned repair, or replacement or upgrade to any equipment or facility forming part of the FTTB Node to DP Connection, <u>OpenNetNetLink Trust</u> shall notify the Requesting Licensee as soon as practicable, including after the carrying out of the service interruption, and shall inform Requesting Licensees of the period of service interruption. <u>OpenNetNetLink Trust</u> would use its best endeavours shall take reasonable measures to minimise any service disruption to the Requesting Licensee.

IDA Directed Modifications: IDA refers NetLink Trust to Section 5 of the Explanatory Memorandum to this Direction. Accordingly, IDA directs NetLink Trust to propose, for IDA's approval, modifications to clauses 9.5 and 9.6 to (a) revert the notification period for all Planned Interruptions to one (1) month; (b) clarify that NetLink Trust will provide at least one-week's notice to RLs for any postponement of Planned Interruptions; and (c) clarify that should NetLink Trust be restricted to a shorter notification period due to corresponding short notices provided by third parties, NetLink Trust shall use the same principle in the process for Unplanned Interruptions to inform the RLs as soon as practicable of such unforeseen postponement of Planned Interruptions.

Further, IDA directs NetLink Trust to propose, for IDA's approval, modifications to both clauses 9.5 and 9.6 to reflect that NetLink Trust shall take best endeavours to minimise any service disruption to the Requesting Licensee in cases of service interruptions described in clauses 9.5 and 9.6.

- 9.7 OpenNetNetLink Trust shall include the following details in the written notification or via OpenNetNetLink Trust 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) OpenNetNetLink Trust's Network Operations Centre Contact Number.
- 9.8 If the planned service interruption affects FTTB Node to DP Connections, OpenNetNetLink Trust will carry out the planned service interruption between 1am and 6am, unless it is not feasible for OpenNetNetLink Trust to do so.
- 9.9 Subject to Requesting Licensee acquiring redundancy service, OpenNetNetLink Trust shall, where technically feasible, provide assistance to Requesting Licensee to divert its FTTB Node to DP Connection to the redundancy service before commencing the planned service interruption.
- 9.10 Where there are available resources, OpenNetNetLink Trust will, where possible, first divert critical links to alternative routings before commencing the planned service interruption.
- 9.11 Subject to clause 9.5 or 9.6 or 9.7, <u>OpenNetNetLink Trust</u> shall not be liable for any loss caused by such service interruption, except for any Service Level Guarantee rebate that arises from <u>OpenNetNetLink Trust</u> carrying out the service interruption outside of the stipulated period and the Requesting Licensee has reported the fault in accordance to clause 11.
- 9.12 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.
- 9.13 The Requesting Licensee must procure and maintain at its own cost:
  - (a) any equipment or software needed to implement, receive or use the FTTB Node to DP Connection; and

- (b) any space near the FTTB Node for its equipment.
- 9.14 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 FTTB Node to DP Connection.
- 9.15 Onsite charges are applicable whenever Requesting Licensee requests for OpenNetNetLink Trust to be onsite other than for provisioning of FTTB Node to DP Connection or for reasons caused by OpenNetNetLink Trust's fault or error.

## 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 FTTB Node to DP 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.
- 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 own network before reporting the fault to <u>OpenNetNetLink Trust</u>. The Requesting Licensee shall pay <u>OpenNetNetLink Trust</u> according to Schedule 15 (Charges) for cancellation of any fault reported regardless of the response or stage of investigation by <u>OpenNetNetLink Trust</u>.
- 11.3 Where the fault is reported via the OpenNetNetLink Trust 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 OpenNetNetLink Trust Platform will provide a fault acknowledgement.

Upon receipt of a fault report from the Requesting Licensee under clause 11.2, <u>OpenNetNetLink Trust</u> 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. <u>OpenNetNetLink Trust</u> shall provide periodic updates to the Requesting Licensee on the status of the fault rectification and also updates when there is a change in status of the fault investigation/rectification work through <u>OpenNetNetLink Trust</u> Platform, when available, or via manual means. For the avoidance of doubt, <u>OpenNetNetLink Trust</u> shall inform the industry when the above feature will be available on <u>OpenNetNetLink Trust</u> Platform. Where a fault is reported via manual means, Requesting Licensee shall submit information as required above. <u>OpenNetNetLink Trust</u> may also provide the updates and status via Email.

- 11.4 If, following investigation, OpenNetNetLink Trust determines that the fault is at the Patch Cable at the FTTB Node, OpenNetNetLink Trust will replace with another Patch Cable 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 Patch Cable at the FTTB Node.
- 11.5 If, following investigation, <u>OpenNetNetLink Trust</u> determines that no fault is found or the fault is not with the <u>OpenNetNetLink Trust</u> Network or equipment, then <u>OpenNetNetLink Trust</u> shall charge the Requesting Licensee a No Fault Found Charge for the fault report in accordance with Schedule 15 (Charges).
- 11.6 The process for fault investigation shall be as follows:
  - (a) For each of the three (3) wavelengths of 1310nm, 1490nm and 1550nm where applicable, the optical power shall be measured in accordance with clause 6.9 above, and the findings shall be clearly recorded using the "Fault Rectification Service Report" (Annex 7B).
  - (b) if the power loss do not exceed the limit specified in clause 6.9 then the following steps shall be carried out before a finding of "no fault found" will be recorded:
    - determine that the patching at the FTTB node and the patch cord are properly installed

- determine that no macro bending that produces high loss
- determine that no dirty/damaged connector
- determine that there is no wrong patching
- measurements of the following shall also be taken :
  - optical time-domain reflectometer
  - ➢ power loss
- (c) Upon completion of any fault investigation, where both OpenNetNetLink Trust and Requesting Licensee are present, OpenNetNetLink Trust will hand over the connection to the Requesting Licensee and both Parties shall jointly sign off on the "Fault Rectification Service Report" (Annex 7B), which will state the outcome of the investigation. For fault investigation where Requesting Licensee is not required to be present, OpenNetNetLink Trust shall conclude the investigation on-site and inform the Requesting Licensee of the outcome accordingly. OpenNetNetLink Trust shall provide periodic updates to the Requesting Licensee on the status of the investigation and also updates when there is a change in status of the investigation through OpenNetNetLink Trust Platform, when available. For the avoidance of doubt, OpenNetNetLink Trust shall inform the industry when the above features will be available on OpenNetNetLink Trust Platform.
- 11.7 If OpenNetNetLink Trust is unable to identify any fault, OpenNetNetLink Trust will call for a fault identification coordination meeting between OpenNetNetLink Trust and the Requesting Licensee to identify the fault. OpenNetNetLink Trust will notify the Requesting Licensee on the request for fault identification. The Requesting Licensee shall provide all reasonable assistance requested by OpenNetNetLink Trust. Each Party is to bear its own cost for attending 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:
  - (a) In the event that a particular fault is due to <u>OpenNetNetLink Trust</u> or its contractors, <u>OpenNetNetLink Trust</u> shall not impose any charge on the Requesting Licensee for access to the Co-Location Space (where applicable), regardless of whether it is an <u>OpenNetNetLink Trust</u>-initiated fault identification coordination meeting or a Requesting Licensee-initiated joint investigation process. In addition, <u>OpenNetNetLink Trust</u> shall not impose the joint investigation charge on the Requesting Licensee even if the fault identification process is initiated by the Requesting Licensee.

Schedule 7 - FTTB Node to DP Connection

- (b) In the event that a particular fault is due to the Requesting Licensee or its contractors or its End-Users, <u>OpenNetNetLink Trust</u> 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 <u>OpenNetNetLink Trust</u>-initiated fault identification coordination meeting or a Requesting Licensee-initiated joint investigation process. In addition, <u>OpenNetNetLink Trust</u> 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 <u>OpenNetNetLink Trust</u> (or its contractors) or the Requesting Licensee (or its contractors or End-Users), <u>OpenNetNetLink Trust</u> 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, <u>OpenNetNetLink Trust</u> shall also be entitled to impose the joint investigation charge on the Requesting Licensee if the process was initiated by the Requesting Licensee.
- 11.8 The FTTB Node to DP Connection is deemed to be restored when <u>OpenNetNetLink</u> <u>Trust</u> has tested and confirmed to the Requesting Licensee that the FTTB Node to DP Connection has been restored. <u>OpenNetNetLink Trust</u> will notify the Requesting Licensee with the cause of fault.
- 11.9 Where the Requesting Licensee has lodged with **OpenNetNetLink Trust** a fault report and **OpenNetNetLink Trust** is in the process of investigating the fault or where the Requesting Licensee has not lodged a fault report but suspects that there is a fault with the FTTB Node to DP Connection, the Requesting Licensee may request OpenNetNetLink Trust for a joint investigation. The Requesting Licensee shall propose the date, time and venue for the joint investigation. Subject to OpenNetNetLink Trust's resource availability and agreement to the date, time and venue, OpenNetNetLink Trust shall attend the joint investigation and charge the Requesting Licensee the Joint Investigation Charge according to Schedule 15 (Charges) if the fault is not due to OpenNetNetLink Trust. If the fault is due to OpenNetNetLink Trust, OpenNetNetLink Trust will waive the Joint Investigation Charge. The process for a joint investigation shall be as described in clause 11.6. Clauses 11.7(a) to (c) will also apply to joint investigations conducted under clause 11.9. Additionally, where the Requesting Licensee disputes OpenNetNetLink Trust's findings, the Requesting Licensee may request OpenNetNetLink Trust for a fault identification coordination meeting.

- 11.10 The Requesting Licensee acknowledges that OpenNetNetLink Trust may temporarily disconnect the Requesting Licensee's FTTB Node to DP Connection to perform reasonable fault analysis and line testing on the FTTB Node to DP Connection. OpenNetNetLink Trust shall conduct such disconnection only as it reasonably considers necessary. OpenNetNetLink Trust shall notify the Requesting Licensee at least thirty (30) minutes before the temporary disconnection and provide its reasons for the temporary disconnection.
- 11.11 Each Party shall maintain and store its own records of faults and repairs.

#### Mean Time To Recovery

- 11.12 OpenNetNetLink Trust shall restore any fault within a standard Mean Time To Recovery (MTTR) of eight (8) hours.
- 11.13 Subject to clause 2.6, the MTTR shall be the average time OpenNetNetLink Trust took to restore service for all fault incidents for all FTTB Node to DP 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 OpenNetNetLink Trust confirms that the fault is restored, excluding fault incidents where OpenNetNetLink Trust is prevented or restricted from restoring the service owing to matters that are not within OpenNetNetLink Trust's control. For the avoidance of doubt, the MTTR is calculated as follows:



Where X = Time taken to restore fault incidents for each FTTB Node to DP Connection during a month as described above

 $\boldsymbol{Y}$  = Total number of affected FTTB Node to DP Connections in the same month

11.14 In the event OpenNetNetLink Trust fails to meet the standard MTTR for a particular month, OpenNetNetLink Trust 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 FTTB Node to DP Connection, subject to a maximum of 30 times the Weekly Recurring Charge for the FTTB Node to DP Connection.

## **12.** SERVICE LEVEL AVAILABILITY

- 12.1 OpenNetNetLink Trust shall offer a service level availability of 99.99% per month for the FTTB Node to DP Connection. OpenNetNetLink Trust shall offer to rebate the Requesting Licensee ten percent (10%) of the Monthly Recurring Charge if OpenNetNetLink Trust fails to meet the service level availability for that month.
- 12.2 Service level availability for the FTTB Node to DP Connection is calculated as follows:

Where A = 24 hours x number of days for the month (in hours); and

B = total network outage time for the FTTB Node to DP 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 FTTB Node to DP Connection is unavailable measured from the time each fault is reported by the Requesting Licensee to the time <u>OpenNetNetLink Trust</u> confirms that the fault is restored, excluding fault incidents where <u>OpenNetNetLink</u> <u>Trust</u> is prevented or restricted from restoring the service owing to matters that are not within <u>OpenNetNetLink Trust</u>'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 FDF in the FTTB Node and the DP.
- 13.2 Each Party shall, so far as reasonably practicable, take all necessary steps to ensure that the licence of the FTTB Node to DP 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 <u>OpenNetNetLink Trust</u> Network.

## 14. TERM OF LICENCE

14.1 The minimum contract term for the FTTB Node to DP Connection shall be twelve (12) months starting from the service activation date of the FTTB Node to DP Connection.

#### 15. SUSPENSION

- 15.1 OpenNetNetLink Trust may suspend the Requesting Licensee's licence to the FTTB Node to DP Connection at any time until further notice to the Requesting Licensee if the FTTB Node to DP Connection licence causes or is likely to cause physical or technical harm to any telecommunications network, system or services (whether of OpenNetNetLink Trust or any other person) including but not limited to causing damage, interfering with or causing deterioration in the operation of the OpenNetNetLink Trust 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, OpenNetNetLink Trust shall not be liable to the Requesting Licensee for any Loss resulting from, or in connection with, suspension of the FTTB Node to DP Connection licence under this clause 15.

## 16. TERMINATION OF LICENCE

## CLAUSES 16.1 & 16.2 – MODIFICATION REQUIRED

- 16.1 On a fortnightly basis, tThe Requesting Licensee shall keep OpenNetNetLink Trust informed of the Requesting Licensee's utilisation of each FTTB Node to DP Connection six (6) months from the service activation date and when there are changes to the utilisation. that was :
  - (a) activated for the End-User within fourteen (14) days prior to the submission of the report;
  - (b) terminated by the End-User within fourteen (14) days prior to submission of the report.

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Schedule 7 - FTTB Node to DP Connection

16.2 The Requesting Licensee must use or activate a service to a Retail Service Provider using the FTTB Node to DP Connection within six (6) months two (2) weeks from the service activation date of the FTTB Node to DP Connection. If the Requesting Licensee fails to do so, OpenNetNetLink Trust will shall, at its sole discretion, deactivate the FTTB Node to DP Connection upon giving the Requesting Licensee ten (10) Business Days prior notice, and the Requesting Licensee did not dispute such written notice given by OpenNetNetLink Trust. The Requesting Licensee must pay OpenNetNetLink Trust the Monthly Recurring Charges for the remainder of the minimum contract term. Where an End User had terminated a FTTB Node to DP Connection, the Requesting Licensee shall terminate the FTTB Node to DP Connection accordingly within two (2) weeks of such termination by the End User. If the Requesting Licensee fails to do so, OpenNet shall, at its sole discretion, deactivate the relevant FTTB Node to DP Connection upon giving the Requesting Licensee two (2) Business days prior notice.

IDA Directed Modifications: IDA refers NetLink Trust to Section 10 of the Explanatory Memorandum to this Direction. IDA directs NetLink Trust to propose, for IDA's approval, modifications to clauses 16.1 and 16.2 to (a) remove the proposed changes in relation to requiring RLs to terminate the service connection within two (2) weeks of such termination by the End-User and if the RL fails to do so, NetLink Trust shall deactivate the relevant service connection upon giving the RL two (2) Business Days prior notice; (b) clarify that the six-month timeframe for the activation of a service connection should be retained; and (c) clarify that the RL shall keep NetLink Trust informed on the RL's utilisation of each service connection six (6) months from the service activation.

- 16.3 OpenNetNetLink Trust may immediately terminate a licence of the FTTB Node to DP Connection under this Schedule if:
  - (a) the Requesting Licensee is no longer an FBO;
  - (b) the OpenNetNetLink Trust ICO is revoked by the Authority under clause 12.8 of the ICO Agreement;
  - (c) the Authority removes the requirement for <u>OpenNetNetLink Trust</u> to supply the FTTB Node to DP Connection under the <u>OpenNetNetLink Trust</u> ICO or exempts <u>OpenNetNetLink Trust</u> from supplying the FTTB Node to DP

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 <u>OpenNetNetLink Trust</u>'s reasonable opinion, the Requesting Licensee is using the FTTB Node to DP Connection in contravention of an applicable law, licence, code, regulation or direction and <u>OpenNetNetLink Trust</u> 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 <u>OpenNetLink Trust</u>'s reasonable opinion, the Requesting Licensee is using the FTTB Node to DP 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 <u>OpenNetNetLink Trust</u> 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 licence in respect of Co-Location Space to which the FTTB Node to DP Connection is connected has been terminated or has expired;
- (g) the FTTB Node to DP Connection has become unsafe for its purpose;
- (h) OpenNetNetLink Trust's right to own, maintain or operate the FTTB Node to DP Connection has been revoked or terminated or has expired
- 16.4 Either Party (**Terminating Party**) may terminate the FTTB Node to DP 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 FTTB Node to DP 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 the FTTB Node to DP Connection:
  - (a) the Requesting Licensee must immediately discontinue use of the FTTB Node to DP Connection;
  - (b) the Requesting Licensee must without undue delay disconnect all equipment connected to the FTTB Node to DP Connection; and
  - (c) OpenNet<u>NetLink Trust</u> 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 <u>OpenNetNetLink Trust</u>'s costs of removing all necessary Patching Services, if the termination is the result of <u>OpenNetNetLink Trust</u>'s fault.
- 16.6 If the licence of the FTTB Node to DP Connection is terminated as a result of the Requesting Licensee's fault, the Requesting Licensee shall be liable to OpenNetNetLink Trust for the Monthly Recurring Charges for the remainder of the minimum contract term.
- 16.7 If the Requesting Licensee fails to disconnect its equipment from the FTTB Node to DP Connection under clause 16.5(b), <u>OpenNetNetLink Trust</u> may at its sole discretion remove and/or dispose of the Requesting Licensee's equipment. The Requesting Licensee shall pay to <u>OpenNetNetLink Trust</u> all reasonable costs associated with the work undertaken by <u>OpenNetNetLink Trust</u> including the cost of disposing the Requesting Licensee's equipment. The Requesting Licensee shall have no claim whatsoever against <u>OpenNetNetLink Trust</u> in connection with the removal and/or disposal of the Requesting Licensee's equipment from the FTTB Node to DP Connection.

## 17. REDUNDANCY SERVICE

17.1 The Requesting Licensee may acquire one separate fibre strand from OpenNetNetLink Trust's FDF at the FTTB Node to the DP (Redundancy Service) at the same prices, terms and conditions as the FTTB Node to DP Connection through a request in the form of Annex 7A either via manual means or OpenNetNetLink Trust Platform, unless stipulated otherwise in this clause 17.

- 17.2 OpenNetNetLink Trust shall provide the Redundancy Service via the same duct and along the same path as the existing FTTB Node to DP Connection, without Duct Diversity and without Path Diversity. OpenNetNetLink Trust may provide the Redundancy Service using a separate fibre strand from the same fibre cable that carries the existing FTTB Node to DP Connection.
- 17.3 The Requesting Licensee is eligible to acquire a Redundancy Service for the FTTB Node to DP Connection provided the Requesting Licensee has acquired or is acquiring an equivalent FTTB Node to DP Connection between the FTTB Node and DP. The Requesting Licensee may request <u>OpenNetNetLink Trust</u> to reject the Request for the FTTB Node to DP Connection in the event that <u>OpenNetNetLink Trust</u> is unable to provide the Redundancy Service, but such Requests for the FTTB Node to DP Connection and the Redundancy Service must be submitted together to <u>OpenNetNetLink Trust</u>.
- 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 OpenNetNetLink Trust.
- 17.5 OpenNetNetLink Trust shall make the Redundancy Service available to the Requesting Licensee, except where OpenNetNetLink Trust 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.

# ANNEX 7A: REQUEST FORM FOR FTTB NODE TO DP CONNECTION

	Date of Application:	Application	Reference	Number:					
	Requested Date of Activation:								
o	End-User Premise Address								
suse	Any other info:								
Requesting Licensee	Redundancy Service is required								
Request	Request for FTTB Node to DP Connection to be rejected if Redundancy Service is not available								
For and on Behalf of Requesting Licensee									
	Sign:	Company Stamp	Company Stamp:						
ensee									
Lic	Name:	Company Name:							
Requesting Licensee	Designation:								
Requ	Contact Number, Fax and email address								
	Part 1: Date:								
k	Application accepted:								
tLir	Circuit Identification Number:								
ENe.	Tentative Provision Date :   Application rejected								
	Reason for rejection:								
OpenNetNetLink	OpenNetNetLink Trust Name / Signature:	Queue Status:							
	Part 2: Date:								
Trust	Circuit Provision: Revised Provision Date (where applicable):	Reason:							
OpenNetNetLink Trust									
<u>tNe</u>	Any other reason:								
₹ A	Reason for rejection:								
	OpenNetNetLink Trust Name / Signature:								
Φ	-								

#### **Request for FTTB Node to DP Connection**

Schedule 7 - FTTB Node to DP Connection

# ANNEX 7B: FAULT RECTIFICATION SERVICE REPORT

<b>F</b>					
DoopM	ot	Fault Rectification	n Serial	No:	Formatted: Font: 10 pt
perin	et	Service Report			
BRÖADEN VÖL	IR MIND				
Appointment Date:		Arrival Ti	ne:		
Time:		Completio			
Trouble Ticket No:			activation		
			enance Fault Rectifie up end-user appoir		
END-USER INFORMAT	FION		up end user appoint	linent	
Authorised Person		iss/Mdm/Dr			
Name:		135/ Widill/ D1			
Contact no:			( <b>HP</b> ):		
Company:					
Registered Address:	Blk/House:	Unit N	No: #	-	
8	Street Name				
	Building Na	ime:	Postal cod	e: S( )	
LOCATION OF INSTA	LLATION				
A-END (CO/MDF)			O (CO/MDF, End-U	User's Premise)	
Blk/House:	Unit No: #_				
		Blk/He	ouse: Uni	t No: #	
Street Name: Building Name:	D ( 1 1	Street	Name:	Postal code: S()	
Building Name:	_ Postal code:		ng Name:	Postal code: S()	
End-User Declaration (che	eck only one bo	ox)			
I am the owner of t	ha ahoya prami	isos			
I, Name:	ne above prem		om authorised by the	e owner of the premise ar	ud/or the
	any to sign this			astructure Management Pte	
				rust") Pte Ltd or its cont	
				responsibility if the owne	
dispute (a) my auth	ority, or (b) an	y action taken by <del>Op</del>	enNet <u>NetLink Trus</u>	t Pte Ltd at my instruction	<u>s.</u>
Company Stamp (if applic	able):				
For Official Use Only					
OPTICAL MEASUREME	ENTS, WHERI	E POSSIBLE (Measu	ured by RL)		
Fault description:					
Test Measurement				Distance	
(CO to Serving	1310nm	1490nm	1550nm		
Cabinet):				(m)	
Test Measurement				Distance	
(CO to 1 <sup>st</sup> TP):	1310nm	1490nm	1550nm	(m)	
Test Measurement				(111)	
	1010	1.400	1770	Distance	
(Segment Services A-	1310nm	1490nm	1550nm	(m)	
END to B-END)					
Certified by ON:					
Technician Name:		Date:			
Technician Signatura		Time			
Technician Signature:		Time:			

# ANNEX 7B: FAULT RECTIFICATION SERVICE REPORT

OPTICAL MEASUREMENTS, WHERE POSSIBLE(Measured by ON)									
Fault description:									
					ľ				
Test Measurement	1310nm	1490	)	1550nm	Distance				
(CO to Serving Cabinet):	13101111	1490	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1550111	(m)				
Test Measurement	1310nm	1400		1550	Distance				
(CO to 1 <sup>st</sup> TP):	1310nm	1490	mm	1550nm	(m)				
Test Measurement					Distance				
(Segment Services A-	1310nm	1490	)nm	1550nm	(m)				
END to B-END)					(11)				
Certified by :									
RL Name:	RL Name:				Date:				
RL Signature:			Time:						
Fault Root Cause Description	n								
ACTION TAKEN/ADDITIONAL REMARKS									
CUSTOMER ACKNOWLED	GEMENT AND	ACCEPTAN	ICE						
Remarks/Comments:	JEWIENT ANI	JACCEFTAN	ICE						
This is to acknowledge tha	t the fibre faul	t rectification	1 has been	attended and the	fault resolution is e	ffective			
Fault Attended by:			Resolution Accepted by End-User:						
Technician Name:									
Technician Signature:		End-User Signa		r Signature:					
Resolution Verified and Accepted by RL (Only applicable for <u>1 hour activation</u> ) :									
RL Name:			RL Signa	ature:					

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.