

**APPENDIX 4B**

**DIRECTED AMENDMENTS TO SCHEDULE 4 – STAGE 2**

**SCHEDULE 4**

**CO TO CO CONNECTION**

**NOTE: UNLESS OTHERWISE SPECIFIED IN IMDA'S DIRECTED AMENDMENTS IN THE FURTHER DIRECTION, NETLINK TRUST'S FURTHER PROPOSED MODIFICATIONS TO SCHEDULE 4 – CO TO CO CONNECTION ARE APPROVED.**

## **SCHEDULE 4**

### **CO TO CO CONNECTION**

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## SCHEDULE 4

### CO TO CO CONNECTION

#### 1. SCOPE

This Schedule 4 sets out the terms and conditions under which NetLink Trust will provide the Requesting Licensee with a licence for Layer 1 Service (a service provided by NetLink Trust for the use of passive optical fibre cable) from one Central Office (or “CO”) to another Central Office (**CO to CO Connection**).

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

#### 2. SERVICE LEVEL GUARANTEES

- 2.1 NetLink Trust will provide the Service Level Guarantees in respect of the CO to CO Connection as set out in this Schedule. If NetLink 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 NetLink Trust, its contractors and/or suppliers, NetLink Trust will provide a remedy in the form of a rebate to the Requesting Licensee in accordance with:

- (i) Clause 6.9 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.

- 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. NetLink Trust 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 NetLink Trust assessed that the

Requesting Licensee's claim is invalid, NetLink Trust will explain its basis or require the Requesting Licensee to provide additional information. For valid claims submitted within the timeframe, NetLink Trust 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 NetLink Trust and will be reflected in NetLink Trust's bill to the Requesting Licensee in accordance with NetLink Trust's billing cycle.
- 2.4 The guarantee and rebates provided by NetLink Trust 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, NetLink Trust 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 CO to CO 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 NetLink Trust'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 CO to CO Connection where any site-coordination meeting, fault investigation, Joint Investigation Meeting or fault identification coordination meeting is involved, except where (a) the fault was caused by NetLink Trust; 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 NetLink Trust, the time taken from the start of arranging any site-coordination meeting,

fault investigation, Joint Investigation Meeting or fault identification coordination meeting up to the end of the meeting, shall always be excluded;

- (d) NetLink Trust is unable to obtain or maintain any licence or permission necessary to the provision or restoration of CO to CO 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 NetLink Trust, the time taken by NetLink Trust to obtain or maintain any licence or permission necessary to the provision or restoration of the CO to CO Connection shall always be excluded. Provided that in the event that the Requesting Licensee raises a dispute as to whether NetLink Trust has used its best endeavours to obtain or maintain the licence/permission, NetLink Trust will provide evidence that it has used such best endeavours;
  - (e) delay in the provision or restoration of the CO to CO Connection caused by events beyond the reasonable control of NetLink Trust and its suppliers and contractors;
  - (f) NetLink Trust's Network outages for which the Requesting Licensee has not reported a fault;
  - (g) fault is reported by the Requesting Licensee but no fault is found or confirmed after due and careful investigation, and verification by NetLink Trust;
  - (h) NetLink 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
  - (i) NetLink Trust 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 or 9.6 .
- 2.7 If the Requesting Licensee disputes NetLink 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 NetLink 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 CO to CO Connection and shall be NetLink Trust's sole and exclusive liability to the Requesting Licensee for such failure.

### **3. SERVICE DESCRIPTION AND ACCESS POINTS**

3.1 NetLink Trust will provide a licence for the CO to CO Connection to the Requesting Licensee with the following:

- (a) one (1) fibre strand from NetLink Trust's Fibre Distribution Frame (**FDF**) at one Central Office to NetLink Trust's FDF at the other Central Office if requested by the Requesting Licensee; and
- (b) one (1) Patching Service at each of NetLink Trust's FDFs at the two Central Offices.

3.2 The Requesting Licensee shall access the CO to CO Connection at NetLink Trust's FDFs located at the two Central Offices or the Requesting Licensee's FDF at the Central Office.

### **4. ORDERING AND PROVISIONING PROCEDURE**

4.1 (A) The Requesting Licensee shall submit its request for the CO to CO Connection (**Request**) to NetLink Trust on a Business Day in the form of Annex 4A stating, but not limited to the following information:

- (a) the relevant Central Offices.

(B) As an alternative to submitting a Request under the form set out in Annex 4A under clause 4.1(A), the Requesting Licensee may also submit its Request for Residential End-User Connection (Request) to NetLink Trust via the NetLink Trust Platform, stating, but not limited to the following information:

- (a) the relevant Central Offices.

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 NetLink 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 NetLink Trust Platform APIs, it will provide a Request acknowledgement.

- 4.2 Relocation of the CO to CO Connection is not allowed.
- 4.3 Information relating to the Mandated Services will be available on NetLink Trust Platform, for access by the Requesting Licensee through secured means. The secured access to NetLink 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 NetLink Trust Platform. The information relating to the Mandated Services and the information relating to network outages is available on the NetLink Trust Platform. .

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

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



## 5. CO TO CO CONNECTION REQUEST

5.1 NetLink Trust shall process all Requests received for the CO to CO Connection on a 'first come, first served' basis.

5.2 For each Business Day, NetLink Trust shall process a combined total of no more than 1452 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 NetLink Trust Platform and for which the Request is to be fulfilled except such Business Day where the Maximum Quota has been reached. NetLink Trust 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) The Maximum Quota is subject to the review mechanism as described as follows. If NetLink 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), NetLink 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 NetLink 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), NetLink 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 may be revised from time to time subject to the Authority's approval.

5.3 (A) Within one (1) Business Day of the date on which NetLink Trust receives the Request for CO to CO Connection (**Request Date**) and subject to clause 5.2, NetLink 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 CO to CO 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 three (3) 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 NetLink Trust receives a Request for CO to CO Connection (request Date) via NetLink Trust Platform, NetLink Trust 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 CO to CO 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 three (3) 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 NetLink Trust receives the Request via the NetLink Trust Platform for CO to CO Connection (Request Date) and subject to clause 5.2, NetLink 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 NetLink Trust Platform is experiencing technical problems, NetLink Trust shall inform the Requesting Licensee to submit the Requests through fax/email or offer alternative solutions.

- 5.4 (A) Within three (3) Business Days of the Request Date and subject to clause 5.2, NetLink 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) whether its Request is accepted, or if rejected, for any one of the following

reasons, except where there is insufficient capacity, NetLink Trust must also notify the Requesting Licensee within three (3) 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 forty (40) Business Days of the Request Date:

- (a) the equipment or services that the Requesting Licensee proposes to use or to provide interfere with, or cause deterioration to services supplied by NetLink Trust; and
- (b) the Transmission Tie Cable (installed pursuant to Co-location Service in Schedule 12) for connection to the CO to CO Connection is yet to be operational at the point in time of NetLink Trust's provisioning of the CO to CO Connection.

(B) In the event that there is insufficient capacity to provide the CO to CO 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 fibres for that location or NetLink Trust's Network has not been rolled out to that location, clause 6.2 shall apply and NetLink Trust shall inform the Requesting Licensee accordingly within three (3) Business Days and advise the Requesting Licensee that the RFS of the CO to CO Connection will be extended to within forty (40) Business Days. Upon receipt of NetLink Trust's notification of insufficient capacity, the Requesting Licensee has the option to continue with the Request or cancel the Request without charges within three (3) Business Days through NetLink Trust Platform, when available. For the avoidance of doubt, NetLink Trust shall inform the industry when the above feature will be available on NetLink Trust Platform.

5.5 The Requesting Licensee shall pay NetLink Trust the applicable Installation Charge specified in Schedule 15 (Charges) for the provisioning of the CO to CO Connection.

5.6 Where NetLink Trust rejects the Request for the CO to CO Connection, NetLink Trust shall provide reasons explaining the basis for rejection promptly.

## **6. DELIVERY**

6.1 Subject to clauses 5.2, 5.3, 5.4 and 6.2, NetLink Trust shall provide the CO to CO Connection by the end of three (3) Business Days from the receipt of a valid Request from the Requesting Licensee.

6.2 (A) Where there is insufficient capacity to provide the CO to CO Connection and additional capacity is required to be installed between the Central Offices, NetLink Trust shall subject to clause 5.2 provide the CO to CO Connection within forty (40) Business Days from the receipt of a valid Request from the Requesting Licensee.

(B) Where there is a delay during service provisioning, NetLink Trust shall make available promptly and no less frequently than on a daily basis on the NetLink Trust Platform (after the Platform is operational) and via email, up-to-date information on: (a) the reasons for the delay; (b) the estimated/revised timeframe required to complete service provisioning; and (c) and changes and/or updates to (a) and/or (b) herein, until the delay is resolved and service is provisioned. The Requesting Licensee has the option to cancel the Request without charges in the event of insufficient capacity within three (3) Business Days upon NetLink Trust's notification to Requesting Licensee of the delay through NetLink Trust Platform, when available. For the avoidance of doubt, NetLink Trust shall inform the industry when the above feature will be available on NetLink Trust 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 ( e.g. resource constraints, 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 shall at all times:

- (a) exercise its best endeavours to resolve the delays before rejecting any orders;
- (b) consider feedback received from the Requesting Licensee prior to any rejection of an order; and
- (c) in addition to providing updates no less frequently than once every day as above, update the Requesting Licensee on a weekly basis, providing clear explanations on the circumstances surrounding the delays and NetLink Trust's best endeavours to resolve the said delays.

For the avoidance of doubt, NetLink Trust shall not be entitled to reject any orders which have been delayed for more than two (2) months unless and until it has fulfilled all of requirements (a), (b) and (c) above, and the Requesting Licensee has been given an opportunity to make representations to NetLink Trust to express its objection to

NetLink Trust's proposed rejection of the order, in accordance with the requirements set out below in this clause 6.2(B).

Where NetLink Trust proposes to reject an order which has been delayed for more than two (2) months, it shall give prior notice to the Requesting Licensee of its intention to do so and provide the Requesting Licensee of its intention to do so and provide the Requesting Licensee with an opportunity to object to NetLink Trust's proposed rejection of the order.

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 provide a timeframe to resolve the delay.

Where the Requesting Licensee is able to substantiate the objection with the appropriate documentary evidence, NetLink Trust must provide the Requesting Licensee with the additional time necessary to provision or reject the order should the Requesting Licensee have no further objection to NetLink Trust's proposed rejection of the order.

NetLink Trust shall proceed to reject the order where the Requesting Licensee fails to substantiate its objection within three (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.

For the avoidance of doubt, nothing in this clause shall preclude the Requesting Licensee from submitting a new Request for the CO to CO Connection once the delays have been resolved. In such cases, NetLink Trust shall not be entitled to impose any rejection or re-submission charges on the Requesting Licensee where the Requesting Licensee submits the new Request in accordance with this clause 6.2(B).

- 6.3 Unless otherwise stated, NetLink Trust shall retain the responsibility for working at NetLink Trust's FDF at the Central Office, including Patching Service at NetLink Trust's FDF at the Central Office in accordance with Schedule 13 (Patching Service). The Requesting Licensee shall bear the Charges for such work carried out by NetLink Trust.
- 6.4 NetLink 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 CO to CO Connection.

- 6.5 NetLink Trust will test the optical fibre cable from NetLink Trust's FDF at the requested Central Office or the Requesting Licensee's FDF at the requested Central Office to NetLink Trust's FDF at the other Central Office to ensure that the CO to CO Connection falls within the specified optical performance. Testing will be conducted at wavelengths of 1310nm, 1490nm and 1550nm.
- 6.6 NetLink Trust shall ensure that the optical power loss does not exceed -0.4dB per km and -0.5dB per connector.
- 6.7 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. NetLink Trust 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).
- 6.8 NetLink Trust shall promptly notify the Requesting Licensee upon the completion of provisioning the CO to CO Connection.
- 6.9 Subject to clause 6.10, in the event NetLink Trust fails to meet the applicable service activation period for a Request, NetLink Trust shall compensate the Requesting Licensee an amount equal to the number of days of delay multiplied by the weekly recurring charge for the CO to CO Connection, subject to a maximum of 30 times the weekly recurring charge for the CO to CO Connection (**Weekly Recurring Charge**), where:

$$\text{Weekly Recurring Charge} = \text{Monthly recurring charge} \times 7 / 30$$

- 6.10 NetLink Trust shall not be required to compensate the Requesting Licensee under any of the following circumstances:
- (a) The Requesting Licensee requests the deferment of the service activation date.

For the avoidance of doubt, where the service activation date has been revised pursuant to the circumstance contemplated in this clause 6.10 or elsewhere in the ICO Agreement (unless otherwise stated), NetLink Trust shall nevertheless be required to compensate the Requesting Licensee if it fails to meet the revised implementation timeline.

## **7. RESPONSIBILITY AT NETLINK TRUST FDF**

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

## **8. DEACTIVATION**

- 8.1 Subject to the minimum contract term, the Requesting Licensee may deactivate the CO to CO Connection by giving NetLink Trust not less than one (1) month prior written notice.
- 8.2 If the CO to CO 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 NetLink Trust 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 CO to CO Connection, NetLink Trust 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 CO to CO Connection, if such termination is the result of NetLink Trust's fault.

## **9. STANDARD TERMS AND CONDITIONS**

- 9.1 NetLink Trust shall at its sole discretion determine its network deployment, including but not limited to the access points and fibre cable routing from which the CO to CO Connection is provided.
- 9.2 NetLink Trust shall be responsible for the maintenance of the CO to CO Connection installed under this Schedule. For the avoidance of doubt, if there is a fault at the Patch Cable, NetLink Trust will charge the Requesting Licensee an additional Patching Charge if the Requesting Licensee was responsible for the fault at the Patch Cable.

- 9.3 Except to the extent strictly necessary to accurately describe the service to actual or potential Customers, the Requesting Licensee shall not use NetLink Trust's name, any of NetLink Trust's trademarks or the fact that any service is supplied using NetLink Trust'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 NetLink Trust's existing services or those of a Third Party as a result of the Requesting Licensee's use of the CO to CO 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 CO to CO Connection, NetLink Trust shall provide the Requesting Licensee with at least four (4) weeks' notice in advance of such interruptions, repairs or upgrades and shall inform Requesting Licensees of the period of such service interruption. In the event that it is necessary for the planned service interruption to be postponed, NetLink Trust shall provide the Requesting Licensee with no less than one (1) week's notice prior to the original scheduled commencement date of the service interruption. Where, for reasons beyond its control, NetLink Trust is unable to give advance notice to the Requesting Licensee as required by this clause 9.5, e.g. where the service interruption or postponement thereof is necessitated by site works carried out by Third Parties and such Third Parties do not give NetLink Trust sufficient advance notice, NetLink Trust shall notify the Requesting Licensee of the service interruption, or postponement thereof (as the case may be), as soon as is practicable and shall inform Requesting Licensee of the period of and the reason for service interruption in accordance with the requirements for an urgent service interruption in clause 9.6. NetLink Trust shall use its best endeavours to minimise any service disruption to the Requesting Licensee.
- 9.6 If it is necessary to carry out an urgent service interruption, including but not limited to circumstances in which it is necessary for a planned service interruption to be postponed or brought forward, and NetLink Trust is unable to give advance notice to the Requesting Licensee as required by clause 9.5 for reasons beyond NetLink Trust's control, , NetLink Trust shall notify the Requesting Licensee as soon is as practicable of: (i) the commencement date and time of the urgent service interruption; and (ii) the estimated period and end date of the urgent service interruption; and (iii) the reason for such urgent service interruption. NetLink Trust shall also inform the Requesting Licensee as soon as the urgent service interruption has ended. NetLink Trust shall use its best endeavours to minimise any service disruption to the Requesting Licensee.
- 9.7 NetLink Trust shall include the following details in the written notification or via NetLink 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) NetLink Trust's Network Operations Centre Contact Number.
- 9.8 If the planned service interruption affects CO to CO Connections, NetLink Trust will carry out the planned service interruption between 1 am and 6am, unless it is not feasible for NetLink Trust to do so.
- 9.9 Subject to Requesting Licensee acquiring redundancy service, NetLink Trust shall, where technically feasible, provide assistance to Requesting Licensee to divert its CO to CO Connection to the redundancy service before commencing the planned service interruption.
- 9.10 Where there are available resources, NetLink 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, NetLink Trust shall not be liable for any loss caused by such service interruption, except for Service Level Guarantee rebate that arises from NetLink Trust 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 CO to CO Connection; and
  - (b) co-location at the Central Offices.

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 CO to CO Connection.

9.15 Onsite charges are applicable whenever Requesting Licensee requests for NetLink Trust to be onsite other than for provisioning of CO to CO Connection or for reasons caused by NetLink 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 CO to CO 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 network before reporting the fault to NetLink Trust. The Requesting Licensee shall pay NetLink Trust according to Schedule 15 (Charges) for cancellation of any fault reported regardless of the response or stage of investigation by NetLink Trust.

### ***CLAUSE 11.3 – REQUIRED AMENDMENTS***

11.3 Where the fault is reported via the NetLink 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 NetLink Trust Platform will provide a fault acknowledgement.

Upon receipt of a fault report from the Requesting Licensee under clause 11.2, NetLink Trust 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. NetLink Trust shall be responsible for determining whether the source of the fault lies in NetLink Trust's Network. NetLink Trust 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 NetLink Trust Platform, when available, or via manual means. For the avoidance of doubt, NetLink Trust shall inform the industry when the above feature will be available on NetLink Trust Platform. Where a fault is reported via manual means, Requesting Licensee shall submit information as required above. NetLink Trust may also provide the updates and status via email.

***IMDA's Directed Amendments: Under IMDA's Directed Modifications, IMDA had directed NetLink Trust to modify the ICO to clarify that NetLink Trust shall be responsible for fault investigation and identification for the passive fibre infrastructure for all faults reported by the RLs. IMDA is of the view that the ICO has not been amended to give full effect to this requirement, and accordingly directs NetLink Trust to amend clause 11.3 by incorporating the directed amendments as annotated above.***

#### **CLAUSE 11.3A – REQUIRED AMENDMENTS**

11.3A The Requesting Licensee shall have the option to attend the fault investigation procedure conducted by NetLink Trust at no additional Joint Investigation Charge to the Requesting Licensee. The Requesting Licensee shall indicate the request to attend NetLink Trust's fault investigation at the point of fault reporting. The date and time for such investigation shall be determined by NetLink Trust and the Requesting Licensee will be informed accordingly. In the event that the Requesting Licensee is not able to attend the fault investigation due to the Requesting Licensee's unavailability, the Requesting Licensee may request NetLink Trust to arrange an alternative date and time which shall be no later than one business day after the originally proposed date and time of the investigation. NetLink Trust shall reasonably accommodate the Requesting Licensee's request for such schedule rearrangement. The Requesting Licensee shall bear its own cost for attending such investigation as well as any testing or troubleshooting activities required as a result of such investigation. Regardless of the outcome of the fault investigation, the Requesting Licensee shall be liable for any charge imposed by NetLink Trust for access to the Co-Location Space (where applicable). For

the avoidance of doubt, this clause 11.3A does not apply to a request for joint investigation pursuant to clause 11.9.

***IMDA's Directed Amendments: Given that the outcome of the fault investigation, which should be jointly attended by both NetLink Trust and the RL, would have bearing to the imposition of the Fault Investigation Charge, IMDA considers it reasonable for NetLink Trust to avail some extent of flexibility to the RL with regard to the scheduling of the joint fault investigation. Hence, it is reasonable to allow the RL to choose an alternative joint fault investigation date/time if the RL is not able to attend the investigation at the originally proposed date/time due to the RL's unavailability. To prevent the investigation process from prolonging, IMDA also considers it necessary for the alternative date/time to be no later than one business day after the originally proposed date/time. Accordingly, IMDA directs NetLink Trust to amend this clause by incorporating the directed amendments as annotated above.***

11.4 If, following investigation, NetLink Trust determines that the fault is at the Transmission Tie Cable at the Central Office, NetLink Trust will patch the CO to CO 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.

#### **CLAUSES 11.5 & 11.5A – REQUIRED AMENDMENTS**

11.5 ~~If, following investigation, NetLink Trust determines that no fault is found or the fault is not with the NetLink Trust Network or equipment, then NetLink Trust shall charge the Requesting Licensee a Fault Identification Charge for the fault report in accordance with Schedule 15 (Charges). In the event that the Requesting Licensee did not elect to participate in a joint investigation pursuant to clauses 11.3A or 11.9, and subsequently raises a dispute on the validity of the Fault Investigation Charge imposed by NetLink Trust, NetLink Trust shall disclose to the Requesting Licensee the necessary evidence that supports the position taken by NetLink Trust. For avoidance of doubt, the Requesting Licensee shall accept the veracity of and rely solely on the evidence supplied by NetLink Trust when assessing whether the Fault Investigation Charge was correctly levied by NetLink Trust in the event that the Requesting Licensee elects not to participate in the fault investigation or identification process conducted by NetLink Trust.~~

If, following investigation, NetLink Trust determines that:

(a) there is no fault in NetLink Trust's Network; or

(b) the fault resides in NetLink Trust's Network and such fault is not evidently caused by NetLink Trust or its contractors or NetLink Trust's Network or equipment,

then, upon completion of the fault investigation by NetLink Trust in the passive fibre network, NetLink Trust shall charge the Requesting Licensee a Fault Identification Charge for the fault reported in accordance with Schedule 15 (Charges) save that for faults falling under clause 11.5(b), NetLink Trust shall not impose the Fault Identification Charge where the faults are not evidently caused by the End-User, RSP or Requesting Licensee (including but not limited to situations where NetLink Trust's Network is damaged by rodent bites, cable cuts by Third Parties, and wear and tear of the fibre in NetLink Trust's Network).

In the event that the Requesting Licensee did not elect to participate in a joint investigation pursuant to clauses 11.3A or 11.10, and subsequently raises a dispute on the validity of the Fault Identification Charge imposed by NetLink Trust, NetLink Trust shall disclose to the Requesting Licensee the necessary evidence that supports the position taken by NetLink Trust. For avoidance of doubt, the Requesting Licensee shall accept the veracity of and rely solely on the evidence supplied by NetLink Trust when assessing whether the Fault Identification Charge was correctly levied by NetLink Trust in the event that the Requesting Licensee elects not to participate in the fault investigation or identification process conducted by NetLink Trust. If the outcome of the assessment shows that the Fault Identification Charge was validly imposed on the Requesting Licensee, the Requesting Licensee will be liable for the Fault Identification Charge.

~~11.5A If, following investigation, NetLink Trust determines that the fault identified in NetLink Trust's Network was not caused by the End User, RSP, or Requesting Licensee (including but not limited to situations where NetLink Trust's Network is damaged by rodent bites, cable cuts by Third Parties, and wear and tear of the fibre in NetLink Trust's Network), NetLink Trust shall not impose any Fault Identification Charge.~~

~~For the avoidance of doubt, NetLink Trust will bear the cost and responsibility for any fault rectification which is necessary to rectify any defect or fault solely caused by NetLink Trust in NetLink Trust's Network.~~

~~In the event that the Requesting Licensee elects not to be present for the fault investigation/ identification, the Requesting Licensee is deemed to accept the outcome~~

~~of the fault identification as conducted by NetLink Trust as final and will be liable for the Fault Identification Charge.~~

~~For the avoidance of doubt, NetLink Trust will bear the cost and responsibility for the rectification of any fault residing in NetLink Trust's Network (including but not limited to situations where NetLink Trust's Network is damaged by rodent bites, cable cuts by Third Parties, and wear and tear of the fibre in NetLink Trust's Network) unless such fault is evidently caused by the End-User, RSP or Requesting Licensee.~~

**IMDA's Directed Amendments: NetLink Trust has amended Clause 11.5 to provide for (a) its right to impose the Fault Identification Charge for faults in its Network which are not evidently caused by NetLink Trust or its contractors or NetLink Trust's Network or equipment, and to provide that (b) if the RL did not elect to participate in a joint investigation and subsequently raises a dispute on the validity of NetLink Trust's imposition of the Fault Identification Charge, the RL shall accept the veracity of and rely solely on the evidence supplied by NetLink Trust when assessing whether the Fault Identification Charge was correctly levied by NetLink Trust.**

**NetLink Trust has also introduced a new Clause 11.5A to provide that (a) NetLink Trust shall not impose any Fault Identification Charge if, following investigation, NetLink Trust determines that the fault identified in NetLink Trust's Network was not caused by the End-User, RSP, or Requesting Licensee (including but not limited to situations where NetLink Trust's Network is damaged by rodent bites, cable cuts by Third Parties, and wear and tear of the fibre in NetLink Trust's Network); (b) that NetLink Trust will bear the cost and responsibility for any fault rectification which is necessary to rectify any defect or fault solely caused by NetLink Trust in NetLink Trust's Network, and (c) in the event that the Requesting Licensee elects not to be present for the fault investigation/identification, the Requesting Licensee is deemed to accept the outcome of the fault identification as conducted by NetLink Trust as final and will be liable for the Fault Identification Charge.**

**With regard to Clause 11.5, IMDA considers that NetLink Trust's amendments give effect to IMDA's Directed Modifications. However, IMDA is of the view that greater clarity is required with regard to the situations in which NetLink Trust has the right to impose the Fault Identification Charge. In particular, for faults on its Network, IMDA considers that the principle that NetLink Trust should not impose the Fault Identification Charge where such faults are not caused by the End-User, RSP, or Requesting Licensee (including but not limited to situations where NetLink Trust's Network is damaged by rodent bites, cable cuts by Third Parties, and wear and tear of the fibre in NetLink Trust's Network) should**

**be stated in Clause 11.5 itself and not Clause 11.5A, as Clause 11.5 is the relevant provision dealing with Fault Identification Charges.**

**With regard to Clause 11.5A, apart from the above, IMDA considers that NetLink Trust's amendment stating that it will only bear the cost and responsibility for the rectification of faults on its Network which are "solely caused by NetLink Trust in NetLink Trust's Network" may give the incorrect impression that NetLink Trust is not required to bear the responsibility for rectifying faults arising from neutral events which are neither caused by NetLink Trust or End-Users, RSPs and RLs, such as where NetLink Trust's Network is damaged by rodent bites, cable cuts by Third Parties, and wear and tear of the fibre in NetLink Trust's Network. For the avoidance of doubt, IMDA expects NetLink Trust to be responsible for rectifying such faults as the owner of the Network. IMDA also considers the final paragraph of Clause 11.5A to be inconsistent with the principle provided for in Clause 11.5 that applies where RLs do not participate in joint investigations. In particular, it does not provide for NetLink Trust to furnish RLs with the "necessary evidence" to support its position on the validity of Fault Identification Charges where the imposition of such charges are disputed by RLs, but simply deems the RL to have accepted the validity of NLT's investigation and liability for the Fault Identification Charge without more.**

**Accordingly, IMDA has restructured Clauses 11.5 and 11.5A to address the foregoing issues and to provide certainty and clarity to NLT and RLs in respect of (a) the specific situations in which NetLink Trust is entitled to charge RLs the Fault Identification Charge; and (b) NetLink Trust's responsibility for rectifying the faults that are found to reside in NetLink Trust's Network.**

**For the reasons above, IMDA directs NetLink Trust to amend Clauses 11.5 and 11.5A by incorporating the directed amendments as annotated above.**

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 6.6 above, and the findings shall be clearly recorded using the "Fault Rectification Service Report" (Annex 4B).
- (b) if the power loss do not exceed the limit specified in clause 6.6 then the following steps shall be carried out before a finding of "no fault found" will be recorded:

- determine that the patching at CO 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 NetLink Trust and Requesting Licensee are present, NetLink Trust will hand over the connection to the Requesting Licensee and both Parties shall jointly sign off on the “Fault Rectification Service Report” (Annex 4B), which will state the outcome of the investigation. For fault investigation where Requesting Licensee is not required to be present, NetLink Trust shall conclude the investigation on-site and inform the Requesting Licensee of the outcome accordingly. NetLink 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 NetLink Trust Platform, when available. For the avoidance of doubt, NetLink Trust shall inform the industry when the above features will be available on NetLink Trust Platform.

11.7 If NetLink Trust is unable to identify any fault, NetLink Trust will call for a fault identification coordination meeting between NetLink Trust and the Requesting Licensee to identify the fault. NetLink Trust will notify the Requesting Licensee on the request for fault identification. The Requesting Licensee shall provide all reasonable assistance requested by NetLink 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 NetLink Trust or its contractors, NetLink Trust shall not impose any charge on the Requesting Licensee for access to the Co-Location Space (where applicable), regardless of whether it is an NetLink Trust-initiated fault identification coordination meeting or a Requesting Licensee-initiated joint investigation process. In addition, NetLink Trust 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, NetLink Trust 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 NetLink Trust-initiated fault identification coordination meeting or a Requesting Licensee-initiated joint investigation process. In addition, NetLink Trust 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 NetLink Trust (or its contractors) or the Requesting Licensee (or its contractors or End-Users), NetLink Trust 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, NetLink Trust 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 CO to CO Connection is deemed to be restored when NetLink Trust has tested and confirmed to the Requesting Licensee that the CO to CO Connection has been restored. NetLink Trust will notify the Requesting Licensee with the cause of fault.

11.9 Where the Requesting Licensee has lodged with NetLink Trust a fault report without indicating a request to attend the fault investigation procedure conducted by NetLink Trust and NetLink 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 CO to CO Connection, the Requesting Licensee may request NetLink Trust for a joint investigation. The Requesting Licensee shall propose the date, time and venue for the joint investigation. Subject to NetLink Trust's resource availability and agreement to the date, time and venue, NetLink 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 NetLink Trust. If the fault is due to NetLink Trust, NetLink 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 under clause 11.9. Additionally, where the Requesting Licensee disputes NetLink Trust's findings, the Requesting Licensee may request NetLink Trust for a fault identification coordination meeting.

11.10 The Requesting Licensee acknowledges that NetLink Trust may temporarily disconnect the Requesting Licensee’s CO to CO Connection to perform reasonable fault analysis and line testing on the CO to CO Connection. NetLink Trust shall conduct such disconnection only as it reasonably considers necessary. NetLink 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 NetLink 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 NetLink Trust took to restore service for all fault incidents for all CO to CO 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 NetLink Trust confirms that the fault is restored, excluding fault incidents where NetLink Trust is prevented or restricted from restoring the service owing to matters that are not within NetLink Trust’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 CO to CO Connection during a month as described above

Y = Total number of affected CO to CO Connections in the same month

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

**12. SERVICE LEVEL AVAILABILITY**

12.1 NetLink Trust shall offer a service level availability of 99.99% per month for the CO to CO Connection. NetLink Trust shall offer to rebate the Requesting Licensee ten percent (10%) of the Monthly Recurring Charge if NetLink Trust fails to meet the service level availability for that month.

12.2 Service level availability for the CO to CO Connection is calculated as follows:

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

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

B = total network outage time for the CO to CO 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 CO to CO Connection is unavailable measured from the time each fault is reported by the Requesting Licensee to the time NetLink Trust confirms that the fault is restored, excluding fault incidents where NetLink Trust is prevented or restricted from restoring the service owing to matters that are not within NetLink Trust’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 both COs.

13.2 Each Party shall, so far as reasonably practicable, take all necessary steps to ensure that the licence of the CO to CO 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 NetLink Trust Network.

## **14. TERM OF LICENCE**

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

## **15. SUSPENSION**

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

## **16. TERMINATION OF LICENCE**

- 16.1 The Requesting Licensee shall keep NetLink Trust informed of the Requesting Licensee's utilisation of each CO to CO Connection six (6) months from the service activation date and where there are changes to the utilisation.
- 16.2 The Requesting Licensee must use or activate a service to a Retail Service Provider using the CO to CO Connection within six (6) months from the service activation date of the CO to CO Connection. If the Requesting Licensee fails to do so, NetLink Trust will deactivate the CO to CO Connection upon giving the Requesting Licensee ten (10) Business Days' prior notice, and if the Requesting Licensee does not dispute such written notice as given by NetLink Trust. The Requesting Licensee must pay NetLink Trust the Monthly Recurring Charges for the remainder of the minimum contract term.
- 16.3 NetLink Trust may immediately terminate a licence of the CO to CO Connection under this Schedule if:
- (a) the Requesting Licensee is no longer an FBO;

- (b) the NetLink Trust ICO is revoked by the Authority under clause 12.8 of the ICO Agreement;
- (c) the Authority removes the requirement for NetLink Trust to supply the CO to CO Connection under the NetLink Trust ICO or exempts NetLink Trust from supplying the CO to CO 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 NetLink Trust's reasonable opinion, the Requesting Licensee is using the CO to CO Connection in contravention of an applicable law, licence, code, regulation or direction and NetLink Trust 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 NetLink Trust's reasonable opinion, the Requesting Licensee is using the CO to CO 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 NetLink Trust 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 CO to CO Connection is connected has been terminated or has expired;
- (g) the CO to CO Connection has become unsafe for its purpose; or
- (h) NetLink Trust's right to own, maintain or operate the CO to CO Connection has been revoked or terminated or has expired.

16.4 Either Party (**Terminating Party**) may terminate the CO to CO 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 CO to CO 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 CO to CO Connection:

- (a) the Requesting Licensee must immediately discontinue use of the CO to CO Connection;
- (b) the Requesting Licensee must without undue delay disconnect all equipment connected to the CO to CO Connection; and
- (c) NetLink Trust 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 NetLink Trust's costs of removing all necessary Patching Services, if the termination is the result of NetLink Trust's fault.

16.6 If the licence of the CO to CO Connection is terminated as a result of the Requesting Licensee's fault, the Requesting Licensee shall be liable to NetLink 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 CO to CO Connection under clause 16.5(b), NetLink Trust may at its sole discretion remove and/or dispose of the Requesting Licensee's equipment. The Requesting Licensee shall pay to NetLink Trust all reasonable costs associated with the work undertaken by NetLink Trust including the cost of disposing the Requesting Licensee's equipment. The Requesting Licensee shall have no claim whatsoever against NetLink Trust in connection with the removal and/or disposal of the Requesting Licensee's equipment from the CO to CO Connection.

## **17. REDUNDANCY SERVICE**

17.1 The Requesting Licensee may acquire the following Redundancy Service for the CO to CO Connection:

- (a) one separate fibre strand from NetLink Trust's FDF at one CO to NetLink Trust's FDF at the other CO via the same duct and along the same path as the CO to CO Connection (**Redundancy Service with Wireline Diversity**);
- (b) one separate fibre strand from NetLink Trust's FDF at one CO to NetLink Trust's FDF at the other CO via a separate duct along the same path as the CO to CO Connection (**Redundancy Service with Duct Diversity**); or
- (c) one separate fibre from NetLink Trust's FDF at one CO to NetLink Trust's FDF at the other CO via a separate path from the CO to CO Connection (**Redundancy Service with Path Diversity**),

at the same prices, terms and conditions as the CO to CO Connection through a request in the form of Annex 4A either via manual means or via the NetLink Trust Platform, unless stipulated otherwise in this clause 17.

- 17.2 The Requesting Licensee is eligible to acquire a Redundancy Service for the CO to CO Connection provided that the Requesting Licensee has acquired or is acquiring an equivalent CO to CO Connection between the same two COs. The Requesting Licensee may request NetLink Trust to reject the Request for the CO to CO Connection in the event that NetLink Trust is unable to provide the Redundancy Service, but such Requests for the CO to CO Connection and the Redundancy Service must be submitted together to NetLink Trust.
- 17.3 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 NetLink Trust.
- 17.4 NetLink Trust shall make the Redundancy Service available to the Requesting Licensee, except where NetLink 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 4A: REQUEST FORM FOR CO TO CO CONNECTION**

**Request for CO to CO Connection**

Requesting Licensee	Date of Application: _____ Requested Date of Activation: _____	Application Reference Number: _____
	Segment from: _____ CO	
	To: _____ CO	
	Any other info: _____  <input type="checkbox"/> Redundancy Service with Wireline Diversity is required <input type="checkbox"/> Redundancy Service with Duct Diversity is required <input type="checkbox"/> Redundancy Service with Path Diversity is required <input type="checkbox"/> Request for CO to CO 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: \_\_\_\_\_

NetLink Trust	<input type="checkbox"/> Application accepted:	
	Circuit Identification Number: _____ Tentative Provision Date : _____	
	<input type="checkbox"/> Application rejected Reason for rejection: _____	
	NetLink Trust Name / Signature: _____	Queue Status: _____

Part 2: Date: \_\_\_\_\_

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



**ANNEX 4B: FAULT RECTIFICATION SERVICE REPORT**

<b>Fault Rectification Service Report</b>					Serial No:			
Appointment Date: Time:			Arrival Time:					
Trouble Ticket No:			Completion Time:					
			<input type="checkbox"/> 1 hour activation <input type="checkbox"/> Maintenance Fault Rectification <input type="checkbox"/> Follow up end-user appointment					
<b>END-USER INFORMATION</b>								
<b>Authorised Person Name:</b>		*Mr/Mrs/Miss/Mdm/Dr						
<b>Contact no:</b>				<b>(HP):</b>				
<b>Company:</b>								
<b>Registered Address:</b>		Blk/House: _____ Unit No: # _____ - _____ Street Name: _____ Building Name: _____ Postal code: S( _____ )						
<b>LOCATION OF INSTALLATION</b>								
<b>A-END (CO/MDF)</b>					<b>B-END (CO/MDF, End-User's Premise)</b>			
Blk/House: _____ Unit No: # _____ - _____					Blk/House: _____ Unit No: # _____ - _____			
Street Name: _____					Street Name: _____			
Building Name: _____ Postal code: S( _____ )					Building Name: _____ Postal code: S( _____ )			
<b>End-User Declaration (check only one box)</b>								
<input type="checkbox"/> I am the owner of the above premises <input type="checkbox"/> I, Name: _____, am authorised by the owner of the premise and/or the above-stated company to sign this form and permit NetLink Management Pte Ltd (as Trustee-Manager of NetLink Trust) (hereinafter referred to as "NetLink Trust") 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 NetLink Trust at my instructions.								
Company Stamp (if applicable):								
<b>For Official Use Only</b>								
<b>OPTICAL MEASUREMENTS, WHERE POSSIBLE (Measured by RL)</b>								
<b>Fault description:</b>								
<b>Test Measurement (CO to Serving Cabinet):</b>	1310n m		1490nm		1550n m		Distance (m)	
<b>Test Measurement (CO to 1<sup>st</sup> TP):</b>	1310n m		1490nm		1550n m		Distance (m)	
<b>Test Measurement (Segment Services A-END to B-END)</b>	1310n m		1490nm		1550n m		Distance (m)	
<b>Certified by NLT:</b>								
Technician Name:					Date:			

## ANNEX 4B: FAULT RECTIFICATION SERVICE REPORT

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