

**APPENDIX 5**

**DIRECTED AMENDMENTS TO SCHEDULE 4**

## **SCHEDULE 4**

### **CO to CO Connection**

**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 OpenNet will provide the Requesting Licensee with a licence for Layer 1 Service (a service provided by OpenNet 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

##### CLAUSE 2.1 – DIRECTED AMENDMENTS

- 2.1 OpenNet will provide the Service Level Guarantees in respect of the CO to CO Connection as set out in this Schedule. If OpenNet fails to meet any service activation period, Mean Time To Recovery or service level availability (collectively called the **Service Level Guarantees**) applicable to this Schedule and the failure to meet the Service Level Guarantees is solely ~~and directly~~ caused by OpenNet, ~~or~~ its contractors and/or suppliers, OpenNet will provide a remedy in the form of a rebate to the Requesting Licensee in accordance with:

IDA considers that OpenNet’s proposed modifications are not fully compliant with IDA’s 3 July 2009 Directed Modifications, because it seeks to limit OpenNet’s liability where it is an indirect cause of the failure to meet Service Level Guarantees. Further, the requirement of “directly” represents an unnecessary impediment to Requesting Licensees making appropriate claims for rebates.

Accordingly, IDA directs OpenNet to amend this clause 2.1 in the manner specified above.

- (i) Clause 6.8 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.

**CLAUSE 2.2 – APPROVED**

~~2.1.2.2~~ 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.

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 OpenNet and will be reflected in OpenNet's bill to the Requesting Licensee in accordance with OpenNet's billing cycle.

2.4 The guarantee and rebates provided by OpenNet are:

- (i) of an ex-gratia nature and personal to the Requesting Licensee and are non-transferable; and
- (ii) subject to this Schedule.

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

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

**CLAUSES 2.6(a) AND 2.6(c) - APPROVED**

- (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 OpenNet'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, Joint Investigation Meeting or fault identification coordination meeting is involved, except where (a) the fault was caused by OpenNet; and (b) the Requesting Licensee has not contributed to any delay in setting up the meeting. Notwithstanding the above, in determining whether the Service Level Guarantees have been met by OpenNet, the time taken from the start of arranging any site-coordination meeting, Joint Investigation Meeting or fault identification coordination meeting up to the end of the meeting, shall always be excluded;

**CLAUSE 2.6(d) – DIRECTED AMENDMENTS**

- (d) where OpenNet needs to obtain or maintain any licence or permission necessary to the provision or restoration of the CO to CO Connection, Notwithstanding the above, in determining whether the Service Level Guarantees have been met by OpenNet, the time taken by OpenNet to obtain or maintain any licence or permission necessary to the provision or restoration of the CO to CO Connection shall always be excluded;

**Where OpenNet needs to obtain or maintain any licence or permission which is necessary to the provision or restoration of the CO to CO Connection, IDA considers it fair and reasonable that the Service Level Guarantees shall apply except that the time taken for obtaining or maintaining the licence or permission shall be excluded in the determination of the Service Level Guarantees, since OpenNet would be able to resume the provisioning or restoration of the service upon obtaining or maintaining the licence or permission.**

**Accordingly, IDA directs OpenNet to amend this clause 2.6(d) in the manner specified above**

- (e) delay in the provision or restoration of the CO to CO Connection caused by events beyond OpenNet's reasonable control;

- (f) OpenNet network outages for which the Requesting Licensee has not reported a fault;

**CLAUSE 2.6(g) – APPROVED**

- (g) fault is reported by the Requesting Licensee but no fault is found or confirmed after due and careful investigation, and verification by OpenNet;
- (h) OpenNet is required to carry out scheduled service interruption and the Requesting Licensee has been informed in accordance with clause 9.5; or

**CLAUSE 2.6(i) - APPROVED**

- (i) OpenNet is required to carry out fibre diversion at the request of the Government Agencies, private developers or other relevant parties and the Requesting Licensee has been informed in accordance with clause 9.5.

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

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

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

**3. SERVICE DESCRIPTION AND ACCESS POINTS**

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

- (a) one (1) fibre strand from OpenNet’s Fibre Distribution Frame (**FDF**) at one Central Office to OpenNet’s FDF at the other Central Office if requested by the Requesting Licensee; and

- (b) one (1) Patching Service at each of OpenNet's FDFs at the two Central Offices.

**CLAUSE 3.2 - APPROVED**

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

**FORMER CLAUSE 3.3 - DIRECTED AMENDMENTS**

~~3.3 For the purposes of this Schedule, OpenNet may have regard to any Requesting Licensee's requirements which have been ordered but not yet delivered when assessing the availability of the CO to CO Connection.~~

**IDA does not find OpenNet's justification for retaining the former clause 3.3 satisfactory. OpenNet is expected to deliver the CO to CO Connection within three (3) Business Days where there is sufficient capacity and within forty (40) Business Days where there is insufficient capacity.**

**Accordingly, IDA directs OpenNet to delete this clause 3.3 in its entirety.**

**4. ORDERING AND PROVISIONING PROCEDURE**

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

**CLAUSE 4.1(a) – DIRECTED AMENDMENTS**

- (a) the Central Offices, ~~and~~

**Arising from the deletion of former clause 4.1(b), IDA directs OpenNet to remove "and" at the end of clause 4.1(a) and replace the semi colon with a full stop.**

**FORMER CLAUSE 4.1(b) – DIRECTED AMENDMENTS**

- ~~(e) where applicable, the Transmission Tie Cable Port to which the CO to CO Connection is to be connected at each Central Office.~~



OpenNet should be the party assigning the Transmission Tie Cable Port to which the CO to CO Connection is to be connected at the Central Office instead of the Requesting Licensee since OpenNet is responsible for OpenNet's Fibre Distribution Frame at the Central Office.

Accordingly, IDA directs OpenNet to delete former clause 4.1(b) in its entirety.

4.2 Relocation of the CO to CO Connection is not allowed.

#### CLAUSE 4.3 – DIRECTED AMENDMENTS

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

For the avoidance of doubt, IDA considers that there is merit to make clear that the applicable charge is the user account charge and that it would be unreasonable to impose the user account charge a second time upon the OpenNet Platform becoming available.

Accordingly, IDA directs OpenNet to amend this clause 4.3 in the manner as specified above.

#### 5. CO TO CO CONNECTION REQUEST

##### CLAUSE 5.1 - APPROVED

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

##### CLAUSE 5.2 - DIRECTED AMENDMENTS

5.2 For ~~Business Day~~each week, OpenNet shall process a combined total of no more than ~~410-2050~~ Requests for Basic Mandated Services and Layer 1 Redundancy

Services (**Maximum Quota**) from all Requesting Licensees, and a ~~daily-weekly~~ roll-over mechanism shall apply for additional Requests beyond the Maximum Quota. For avoidance of doubt, OpenNet will process additional Requests beyond the Maximum Quota in the next available week on a ‘first come, first served’ basis.

IDA is of the view that a weekly roll-over mechanism where OpenNet will process 2050 Requests per week is less restrictive than OpenNet’s proposed daily roll-over mechanism where OpenNet will process only 410 Requests per Business Day because OpenNet will process more than 410 Requests on a certain Business Day (subject to a total of 2050 Requests in a week) if there is high demand on that particular Business Day. In addition, IDA is of the view that OpenNet should provide more clarity on the weekly roll-over mechanism.

Accordingly, IDA directs OpenNet to amend this clause 5.2 in the manner as specified above.

#### CLAUSES 5.3 AND 5.4 – DIRECTED AMENDMENTS

5.3 Within ~~three-one~~ (31) Business Days of the date on which OpenNet receives the request for CO to CO Connection (**Request Date**) and subject to clause 5.2, OpenNet must notify the Requesting Licensee (and shall provide the Requesting Licensee with a unique reference number or a similar form of identification in the notification) ~~whether if~~ its Request is ~~accepted, or if~~ 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;

5.4 Within three (3) Business Days of the Request Date and subject to clause 5.2, OpenNet must notify the Requesting Licensee (and shall provide the Requesting Licensee with a unique reference number or a similar form of identification in the notification) whether its Request is accepted, or if rejected, for any one of the

following reasons, except where there is insufficient capacity, OpenNet must also notify the Requesting Licensee within 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:

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

**CLAUSE 5.4(b) - DIRECTED AMENDMENTS**

(f)(b) the Transmission Tie Cable (installed pursuant to Co-location Service in Schedule 12) for connection to the CO to CO Connection is ~~not yet to be~~ operational at the point in time of OpenNet's provisioning of the CO to CO Connection; and

**IDA considers that there is merit to make clear that it is the Requesting Licensee's responsibility to ensure the Transmission Tie Cable will be operational in time for OpenNet to provision the CO to CO Connection.**

**Accordingly, IDA directs OpenNet to amend this clause 5.4(b) in the manner specified above.**

**FORMER CLAUSE 5.3(g) - DIRECTED AMENDMENTS**

~~(e)the Transmission Tie Cable Port to be connected at the Central Offices in relation to the Request for CO to CO Connection is already in use;~~

**IDA refers to IDA's annotations to former clause 4.1(b). Since OpenNet is the party assigning the Transmission Tie Cable Port and not the Requesting Licensee, the scenario where the Transmission Tie Cable Port is already in use would not arise and should not be a reason for rejection of a Request.**

**Accordingly, IDA directs OpenNet to delete former clause 5.3(g) in its entirety.**

(h)(c) OpenNet has not rolled out its Network to the requested Central Offices;  
or.

**FORMER CLAUSE 5.3(i) - DIRECTED AMENDMENTS**

- (d) ~~(e) OpenNet needs to increase capacity to provide the CO to CO Connection.~~

Under clause 6.2, OpenNet is required to increase capacity in accordance with the service activation period stated therein if there is insufficient capacity. Hence, OpenNet's need to increase capacity should not be a reason for rejection of a Request.

Accordingly, IDA requires OpenNet to delete former clause 5.3(i) in its entirety.

IDA considers it reasonable to expect OpenNet to be able to assess whether the Requesting Licensee's application is to be rejected for the reasons described in clauses 5.3(a), 5.3(b), 5.3(c) and 5.3(d) within one (1) Business Day instead of three (3) Business Days as proposed by OpenNet since the assessment contemplated therein is relatively straightforward. Also, to avoid the situation where OpenNet accepts a Request but subsequently finds out that one or more of the reasons for rejection has occurred when OpenNet carries out the installation of the service, OpenNet should have until the third Business Day, where there is sufficient capacity to provide the CO to CO Connection; and the fortieth Business Day, where there is insufficient capacity, to revert to the Requesting Licensee on the Request. In the case where there is insufficient capacity, OpenNet should notify the Requesting Licensee of the insufficient capacity within three (3) Business Days of the Request Date to keep the Requesting Licensee informed.

Accordingly, IDA directs OpenNet to amend clauses 5.3 and 5.4 in the manner specified above.

#### FORMER CLAUSE 5.4 – DIRECTED AMENDMENTS

~~5.3 Notwithstanding anything in clause 5.3 to the contrary, OpenNet shall give a qualified acceptance to the Requesting Licensee with a revised service activation period if:~~

- ~~(a) — the Transmission Tie Cable (installed pursuant to Co-location Service in Schedule 12 for connection to the CO to CO Connection is not operational at the point in time of OpenNet's provisioning of the CO to CO Connection, but OpenNet has, at the time of the Request, already scheduled for such Transmission Tie Cable to be operational by a definite date; or~~

~~(b) OpenNet needs to increase capacity in order to provide the CO to CO Connection, but OpenNet has, at the time of the Request, already scheduled for capacity to be increased by a definite date~~

*Upon review of OpenNet's proposed modifications relating to the qualified acceptance of a Request, IDA is of the view that a qualified acceptance process may be cumbersome for OpenNet to administer and burdensome to the Requesting Licensee to comply with. It will be more straightforward for OpenNet to reject the Request and the Requesting Licensee to submit a new application when the underlying condition in clause 5.4 (b), which is not a result of OpenNet's fault, is addressed by the Requesting Licensee.*

*Accordingly, IDA directs OpenNet to delete the former clause 5.4 in its entirety.*

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

~~5.75.6~~ Where OpenNet rejects the Request for the CO to CO Connection, OpenNet shall provide reasons explaining the basis for rejection.

## **6. DELIVERY**

### **CLAUSE 6.1 - DIRECTED AMENDMENTS**

6.1 Subject to clauses 5.2, 5.3, 5.4 and 6.2, OpenNet 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.

*As a consequence of IDA's annotations to clause 5, clause 6.1 should also be subject to clause 5.4.*

*Accordingly, IDA directs OpenNet to amend this clause 6.1 in the manner specified above*

### **CLAUSE 6.2 – APPROVED**

6.2 Where there is insufficient capacity to provide the CO to CO Connection and additional capacity is required to be installed between the Central Offices, OpenNet 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.

- 6.3 Unless otherwise stated, OpenNet shall retain the responsibility for working at OpenNet's FDF at the Central Office, including Patching Service at OpenNet'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 OpenNet.
- 6.4 OpenNet 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.

**CLAUSE 6.5 - APPROVED**

- 6.5 OpenNet will test the optical fibre cable from OpenNet's FDF at the requested Central Office or the Requesting Licensee's FDF at the requested Central Office to OpenNet'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 OpenNet shall ensure that the optical power loss does not exceed -0.4dB per km and -0.5dB per connector.
- 6.7 OpenNet shall promptly notify the Requesting Licensee upon the completion of provisioning the CO to CO Connection.
- 6.8 Subject to clause 6.9, in the event OpenNet fails to meet the applicable service activation period for a Request, OpenNet shall compensate the Requesting Licensee an amount equal to the number of days of delay multiplied by the weekly recurring charge for the 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:

Weekly Recurring Charge = Monthly recurring charge x 7 / 30

**CLAUSE 6.9 – DIRECTED AMENDMENTS**

- 6.9 ~~Except for Requests with service activation periods which have been extended beyond the standard service activation period pursuant to clauses 5.4 and 6.2,~~

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

**FORMER CLAUSE 6.9(a) – DIRECTED AMENDMENTS**

~~(a) The Requesting Licensee has requested for a service activation date that is beyond the stipulated service activation period; or~~

**Arising from IDA's annotations to clause 6.9 requiring OpenNet to compensate the Requesting Licensee if OpenNet fails to meet the revised service activation date, former clause 6.9(a) has become a redundant clause.**

**Accordingly, IDA directs OpenNet to delete this former clause 6.9(a) in its entirety.**

~~(b)(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 6.9 or elsewhere in the ICO Agreement (unless otherwise stated), OpenNet shall nevertheless be required to compensate the Requesting Licensee if it fails to meet the revised implementation timeline.**

**As explained in IDA's 3 July 2009 Directed Modifications, IDA expects OpenNet to keep to the revised request service activation date for the scenario listed in clause 6.9 above, failing which the relevant Service Level Guarantees will apply. IDA also considers it fair and reasonable that OpenNet shall be required to compensate the Requesting Licensee the relevant Service Level Guarantees for failure to meet the revised service activation date, if OpenNet agrees to a revised service activation date under the ICO Agreement, unless otherwise stated. IDA notes that there is no extension of service activation date under clauses 5.4. and 6.2.**

**Accordingly, IDA directs OpenNet to amend this clause 6.9 in the manner specified above.**

**7. RESPONSIBILITY AT OPENNET FDF**

7.1 The Requesting Licensee shall not, and shall ensure that its employees, agents and contractors do not, at any time access OpenNet's FDF at the Central Office.

- 7.2 Where the Requesting Licensee wishes to change the existing patching connection at OpenNet'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 terminate the CO to CO Connection by giving OpenNet not less than one (1) month prior written notice.

### **CLAUSE 8.2 - APPROVED**

- 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 OpenNet 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, OpenNet 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 OpenNet's fault.

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

- 9.1 OpenNet 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.

### **CLAUSE 9.2 - DIRECTED AMENDMENTS**

- 9.2 OpenNet ~~will~~ shall be responsible for the maintenance of the CO to CO Connection, ~~excluding all Patching Services~~ installed under this Schedule. ~~The terms and conditions of Patching Services provided are set out in Schedule 13 (Patching Service).~~ For the avoidance of doubt, if there is a fault at the Patch Cable, OpenNet will ~~not~~ charge the Requesting Licensee an additional Patching



Charge if ~~OpenNet (or its contractors and/or supplier)~~the Requesting Licensee was ~~solely and directly~~ responsible for the fault at the Patch Cable.

*As the responsibility for the Patching Service lies with OpenNet, OpenNet shall only charge the Requesting Licensee a Patching Charge if the Requesting Licensee is responsible for the fault at the Patch Cable. In addition, to avoid confusion, clause 9.2 should not exclude Patching Services from the maintenance of the CO to CO Connection. Also, it is irrelevant to mention that the terms and conditions of Patching Services provided shall be pursuant to Schedule 13 (Patching Service).*

*Accordingly, IDA directs OpenNet to amend this clause 9.2 in the manner specified above.*

9.3 Except to the extent strictly necessary to accurately describe the service to actual or potential Customers, the Requesting Licensee shall not use OpenNet's name, any of OpenNet's trademarks or the fact that any service is supplied using OpenNet's Network in promoting the Requesting Licensee's service.

9.4 The Parties shall in good faith co-operate with each other and take reasonable measures to ensure that there is no interference with or deterioration to OpenNet's existing services or those of a Third Party as a result of the Requesting Licensee's use of the CO to CO Connection.

#### **CLAUSE 9.5 - APPROVED**

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

#### **CLAUSE 9.6 - DIRECTED AMENDMENTS**

9.6 If the scheduled service interruption affects CO to CO Connections, OpenNet will ~~endeavour to~~ carry out the scheduled service interruption between 1 am and 6am, unless it is not feasible for OpenNet to do so.

*IDA refers to IDA's 20 August 2009 Decision varying IDA's 3 July 2009 Directed Modifications Decision to allow OpenNet to carry out scheduled service maintenance outside of the 1:00am and 6:00am timeframe where it is unavoidable for OpenNet to do*

so within the specified timeframe. OpenNet's proposed modifications do not provide assurance to Requesting Licensees that OpenNet will carry out all planned service maintenance within the specified timeframe unless it is unavoidable for OpenNet to do so.

Accordingly, IDA directs OpenNet to amend this clause 9.6 in the manner specified above.

**CLAUSE 9.7 - APPROVED**

9.7 Subject to Requesting Licensee acquiring redundancy service, OpenNet shall, where technically feasible, provide assistance to Requesting Licensee to divert its CO to CO Connection to the redundancy service before commencing the scheduled service interruption.

9.8 Where there are available resources, OpenNet will, where possible, first divert critical links to alternative routings before commencing the scheduled service interruption.

**CLAUSE 9.9 - DIRECTED AMENDMENTS**

9.9 Subject to clause 9.6, OpenNet shall not be liable for any loss caused by such scheduled service interruption, except for Service Level Guarantee rebate that arises from OpenNet carrying out the scheduled service interruption outside of the stipulated period and the Requesting Licensee has reported the fault in accordance to clause 11.

IDA does not agree with OpenNet's comment that clause 12.3 fully addresses IDA's 3 July 2009 Directed Modifications to clause 9.9 requiring OpenNet to propose a suitable remedy where a scheduled service interruption is carried out outside of the stipulated period.

Accordingly, IDA requires OpenNet to amend this clause 9.9 in the manner specified above.

9.10 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.

**CLAUSE 9.11 - APPROVED**

9.11 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.

9.12 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.

#### **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 OpenNet.

#### **CLAUSE 11.3 - APPROVED**

11.3 Upon receipt of a fault report from the Requesting Licensee under clause 11.2, OpenNet shall investigate the cause of the fault experienced by the Requesting Licensee in a diligent and responsible manner as would be expected of a competent service provider. OpenNet shall update the Requesting Licensee as and when there is a change in status of the fault investigation/rectification work.

#### **CLAUSE 11.4 - DIRECTED AMENDMENTS**

11.4 If, following investigation, OpenNet determines that the fault is at the Transmission Tie Cable at the Central Office, OpenNet 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): ~~OpenNet will not charge the Requesting Licensee a Patching Charge if OpenNet, (or its contractors and/or suppliers) the Requesting Licensee was solely and directly~~ responsible for the fault at the Transmission Tie Cable at the Central Office.

*As the responsibility for the Transmission Tie Cable at the Central Office lies with OpenNet, OpenNet should only charge the Requesting Licensee a Patching Charge if the fault at the Transmission Tie Cable at the Central Office is caused by the Requesting Licensee.*

*Accordingly, IDA directs OpenNet to amend this clause 11.4 in the manner specified above.*

- 11.5 If, following investigation, OpenNet determines that no fault is found or the fault is not with the OpenNet Network or equipment, then OpenNet shall charge the Requesting Licensee a No Fault Found Charge for the fault report in accordance with Schedule 15 (Charges).
- 11.6 If OpenNet is unable to identify any fault, OpenNet will call for a fault identification coordination meeting between OpenNet and the Requesting Licensee to identify the fault. The Requesting Licensee shall provide all reasonable assistance requested by OpenNet. 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.
- 11.7 The CO to CO Connection is deemed to be restored when OpenNet has tested and confirmed to the Requesting Licensee that the CO to CO Connection has been restored.
- 11.8 Where the Requesting Licensee has lodged with OpenNet a fault report and OpenNet is in the process of investigating the fault or where the Requesting Licensee has not lodged a fault report but suspects that there is a fault with the CO to CO Connection, the Requesting Licensee may request OpenNet for a joint investigation. The Requesting Licensee shall propose the date, time and venue for the joint investigation. Subject to OpenNet's resource availability and agreement to the date, time and venue, OpenNet shall attend the joint investigation and charge the Requesting Licensee the Joint Investigation Charge according to Schedule 15 (Charges).

**CLAUSE 11.9 - DIRECTED AMENDMENTS**

11.9 The Requesting Licensee acknowledges that OpenNet 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. OpenNet shall conduct such disconnection only as it reasonably considers necessary. OpenNet shall notify the Requesting Licensee at least thirty (30) minutes before the temporary disconnection and provide its reasons for the temporary disconnection.

IDA refers to IDA's 3 July 2009 Directed Modifications requiring OpenNet to modify clause 11.9 such that any temporary disconnection by OpenNet under clause 11.9 to perform fault analysis and line testing on the CO to CO Connection must in its reasonable discretion, be considered necessary.

Accordingly, IDA directs OpenNet to amend this clause 11.9 in the manner specified above.

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

**Mean Time To Recovery**

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

**CLAUSE 11.12 - DIRECTED AMENDMENTS**

11.12 Subject to clause 2.6, the MTTR shall be the average time OpenNet 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 OpenNet confirms that the fault is restored, excluding fault incidents where OpenNet is prevented or restricted from restoring the service owing to matters that are not within OpenNet's control. For the avoidance of doubt, the MTTR is calculated as follows:

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

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

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

For clarity, IDA directs OpenNet to amend this clause 11.12 to specify the formula for the computation of the MTTR in the manner specified above.

11.13 In the event OpenNet fails to meet the standard MTTR for a particular month, OpenNet shall compensate the Requesting Licensee an MTTR Rebate equal to the difference between the MTTR experienced by the Requesting Licensee and the standard MTTR in terms of number of days, multiplied by the number of services affected, multiplied by the Weekly Recurring Charge for the 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 OpenNet shall offer a service level availability of 99.99% per month for the CO to CO Connection. OpenNet shall offer to rebate the Requesting Licensee ten percent (10%) of the Monthly Recurring Charge if OpenNet fails to meet the service level availability for that month.

12.2 Service level availability for the 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 OpenNet confirms that the fault is restored, excluding fault incidents where OpenNet is prevented or restricted from restoring the service owing to matters that are not within OpenNet's control.

**13. PROTECTION AND SAFETY**

13.1 Each Party is responsible for the safe operation of its Network and in particular the safe operation of any equipment within its Network on its side of the connection at the 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 OpenNet 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**

**CLAUSE 15.1 - APPROVED**

15.1 OpenNet 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 OpenNet or any other person) including but not limited to causing damage, interfering with or causing deterioration in the operation of the OpenNet Network. If the suspension is the result of the Requesting Licensee's fault, the Requesting Licensee shall continue to pay the Monthly Recurring Charge during the period of suspension.

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

## 16. TERMINATION OF LICENCE

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

### CLAUSE 16.2 - DIRECTED AMENDMENTS

16.2 The Requesting Licensee must use or, where applicable, 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, OpenNet will deactivate the CO to CO Connection upon giving the Requesting Licensee ten (10) Business Days prior notice, and the Requesting Licensee did not dispute such written notice given by OpenNet.

IDA notes that clause 16.2 does not fully reflect the requirements in Section 2.8 of NetCo Interconnection Code 2009 and accordingly directs OpenNet to amend this clause 16.2 in the manner specified above.

### CLAUSE 16.3 - APPROVED

16.3 OpenNet 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 OpenNet ICO is revoked by the Authority under clause 12.8 of the ICO Agreement;
- (c) the Authority removes the requirement for OpenNet to supply the CO to CO Connection under the OpenNet ICO or exempts OpenNet 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 OpenNet'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 OpenNet has the necessary confirmation from the relevant Government Agencies that the Requesting Licensee is in contravention of the applicable law, licence, code, regulation or direction;



- (e) in OpenNet's reasonable opinion, the Requesting Licensee is using the 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 OpenNet has the necessary confirmation from the relevant Government Agencies that the Third Party is in contravention of the applicable law, licence, code, regulation or direction;
- (f) the 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) OpenNet's right to own, maintain or operate the CO to CO Connection has been revoked or terminated or has expired.

**CLAUSE 16.4 - APPROVED**

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).

**CLAUSE 16.5 - DIRECTED AMENDMENTS**

16.5 Upon ~~expiry or~~ termination of the licence of the CO to CO Connection:

- (a) the Requesting Licensee must immediately discontinue use of the CO to CO Connection;

*IDA considers that there is merit to make clear that unless the Requesting Licensee requests to terminate the CO to CO Connection service, the licence of CO to CO Connection will not expire upon the expiry of the minimum contract term.*

*Accordingly, IDA directs OpenNet to amend this clause 16.5 in the manner specified above.*

**CLAUSE 16.5(b) – DIRECTED AMENDMENTS**

- (b) the Requesting Licensee must ~~promptly and~~ without undue delay disconnect all equipment connected to the CO to CO Connection; and

*IDA recognises that OpenNet needs to be protected from recalcitrant licensees who delay removal of equipment after their licences have been terminated. Yet this must be balanced with the Requesting Licensees' need for sufficient time to remove equipment. On balance, IDA is of the view that the requirement "without undue delay" is reasonable and already sufficient to protect OpenNet's interests.*

*Accordingly, IDA directs OpenNet to amend clause 16.5(b) in the manner specified above.*

- (c) OpenNet shall be responsible for removing all necessary Patching Services at the Requesting Licensee's cost in accordance with Schedule 15 (Charges). Notwithstanding the above, the Requesting Licensee will not be liable for OpenNet's costs of removing all necessary Patching Services, if the termination is the result of OpenNet's fault.

**CLAUSE 16.6 – APPROVED**

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 OpenNet for the Monthly Recurring Charges for the remainder of the minimum contract term.

**CLAUSE 16.7 – APPROVED**

16.7 If the Requesting Licensee fails to disconnect its equipment from the CO to CO Connection under clause 16.5(b), OpenNet may at its sole discretion remove and/or dispose of the Requesting Licensee’s equipment. The Requesting Licensee shall pay to OpenNet all reasonable costs associated with the work undertaken by OpenNet including the cost of disposing the Requesting Licensee’s equipment. The Requesting Licensee shall have no claim whatsoever against OpenNet in connection with the removal and/or disposal of the Requesting Licensee’s equipment from the CO to CO Connection.

**17. REDUNDANCY SERVICE**

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

**CLAUSE 17.1 – DIRECTED AMENDMENTS**

- (a) one separate fibre strand from OpenNet’s FDF at one CO to OpenNet’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 OpenNet’s FDF at one CO to OpenNet’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 OpenNet’s FDF at one CO to OpenNet’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, unless stipulated otherwise in this clause 17.

**IDA deems that in addition to amending Annex 4A to provide an option for Requesting Licensee to order the Redundancy Service for the CO to CO Connection, it is also necessary for OpenNet to indicate in the main Schedule 4 that the Redundancy Service can be requested through Annex 4A.**

**Accordingly, IDA directs OpenNet to amend this clause 17.1 in the manner specified above.**

**CLAUSE 17.2 – DIRECTED AMENDMENTS**

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 OpenNet to reject the Request for the CO to CO Connection in the event that OpenNet 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 OpenNet.

OpenNet should provide Requesting Licensee an option for OpenNet to reject the Request for CO to CO Connection if OpenNet is unable to provide the Redundancy Service as certain End-Users have strict redundancy service requirements and may not wish to proceed with procuring the CO to CO Connection without the associated Redundancy Service.

Accordingly IDA directs OpenNet to amend this clause 17.2 and Annex 4A in the manner specified.

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 OpenNet.

**CLAUSE 17.4 – DIRECTED AMENDMENTS**

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

Upon further review, IDA considers it fair and reasonable that for consistency, OpenNet should be allowed to reject a request for the Redundancy Service on the same grounds as that for rejecting a request for a CO to CO Connection service as set out in clause 5.4.

Accordingly, IDA directs OpenNet to amend this clause 17.4 in the manner specified above.

**ANNEX 4A: REQUEST FORM FOR CO TO CO CONNECTION**

Request for CO to CO Connection

Requesting Licensee	Date of Application: _____ <b><u>APPROVED</u></b> Requested Date of Activation: _____	Application Reference Number: \
	Segment from: _____ CO	<b><u>DIRECTED AMENDMENTS</u></b> Assigned Transmission Tie Cable Port: _____
	To: _____ CO	Assigned Transmission Tie Cable Port: _____
	<b><u>IDA refers to IDA's annotations to former clause 4.1(b) and directs OpenNet to amend Annex 4A in the manner specified above.</u></b>	
Any other info: _____		
<b><u>DIRECTED AMENDMENTS</u></b>		
<input type="checkbox"/> Redundancy Service <u>with Wireline Diversity</u> is required <input type="checkbox"/> Redundancy Service with Duct Diversity is required <input type="checkbox"/> Redundancy Service with Path Diversity is required		
<b><u>While OpenNet has updated Annex 4A to allow Requesting Licensees to request for Redundancy Service for the CO to CO Connection, OpenNet has not provided for a choice between the 3 types of Redundancy Services which the Requesting Licensee can adopt.</u></b>		
<b><u>In the regard, IDA directs OpenNet to amend Annex 4A to indicate the three options for Redundancy Service which are available to the Requesting Licensee, namely Redundancy Service with Wireline Diversity, Redundancy Service with Duct Diversity and Redundancy Service with Path Diversity.</u></b>		
<b><u>DIRECTED AMENDMENTS</u></b>		
<input type="checkbox"/> Request for CO to CO Connection to be rejected if Redundancy Service is not available		
<b><u>IDA refers to IDA's annotations to clause 17.2 and directs OpenNet to amend Annex 4A in the manner specified above.</u></b>		

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: \_\_\_\_\_

OpenNet	<b><u>DIRECTED AMENDMENTS</u></b>
	<input type="checkbox"/> Application accepted <del>in-principle</del> : <b><u>IDA has directed OpenNet to remove the process relating to the in-principle acceptance of a Request submitted by the Requesting Licensee from clause 5.</u></b>
	<b><u>Accordingly, IDA directs OpenNet to amend Annex 4A in the manner specified above.</u></b>
Circuit Identification Number: _____	
Tentative Provision Date : _____	

	<input type="checkbox"/> Application rejected	
	Reason for rejection:	
	OpenNet Name / Signature:	Queue Status:

Part 2:      Date: \_\_\_\_\_

OpenNet	<input type="checkbox"/> Circuit Provision:	
	Revised Provision Date (where applicable): _____	
	Reason:	
	<p style="text-align: right;"><b><u>DIRECTED AMENDMENTS</u></b></p> <p style="text-align: right;"><u>Insufficient Capacity (Y/N)</u></p> <p><b><u>IDA refers to IDA's annotations to clause 5.4(e) and directs OpenNet to amend Annex 4A in the manners specified above.</u></b></p>	
	Any other reason:	
	<input type="checkbox"/> Application rejected	
	Reason for rejection:	
	OpenNet Name / Signature:	