



**ZICTA**

# **Model Access Offer**

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# Background

The Zambia Information and Communications Technology Authority developed the Model Access Offer in consultation with the Industry Stakeholders. This document is meant to provide essential information for parties that would want Access services.

# 1 Objectives

## Introduction

Under the terms of section 43 of the Information and Communications Technologies Act of 2009, as amended in 2010 licensed operators are obliged on request to enter into negotiations in good faith to provide access to a range of elements of their communications network. Provision of such elements can be a significant factor in establishing competition in the market and can help reduce entry barriers. However, there is no obligation to establish reference offers. While there is a wide range of potential services that could be requested, ZICTA considers it helpful to the development of the market to produce a publically available “Model” agreement which indicates the general outline of an Access Agreement which ZICTA would expect to see become established. Licensed Operators are free to negotiate different agreements, but should treat this Model as an indication of the form of agreement ZICTA is expecting and which ZICTA may consider reasonable should a dispute arise on which ZICTA is required to make a determination.

The range of potential Access services is very wide, and will depend to a great extent on the details of the individual actual and proposed networks, the services to be offered. It is not feasible to provide model definitions for anything other than a few example services. It is anticipated that the range of model definitions will be extended and modified to reflect development of the market as Access Agreements are concluded. For these reasons the model definitions provided should be taken as indicative, forming the basis for definitions of a range of more detailed, operator specific services.

The existence of the model is intended to help the industry understand what is expected of them under the Authority’s Regulations, and to help new and recent entrants understand at an early stage in the development of their business plans the range of services that are, or could be, available. Access services may help entrants develop their business, together with a view of the terms, conditions and tariffs that could be expected. The model may also provide some input for established operators to help guide investment decisions.

The document is presented as an offer made by one operator to the other. While “interconnect” services are generally provided on a reciprocal basis by each party to the other, Access services are more generally unitary, provided by one party to the other. This is the basis which has been adopted for the model agreement. In practice an offer would typically be converted into an agreement during discussion by selecting the appropriate services, adapting the procedures to suit the two parties, modifying the legal terms and conditions through negotiation, and adding schedules setting out details of the numbers, locations and capacities etc of the initial services to be provided. This would then be brought together as a single legal document forming the agreement between the parties and subject to the process set out in the appropriate regulations.

Typically descriptions of each service to be provided would be presented in an annex, with separate schedules clearly listing which services are to be provided at which points in each party’s network and the applicable tariffs. The schedules would be subject to revision as the needs of the parties develop with the market, reflecting changes in capacity requirements and extensions to networks. Annexes may be added as new services are developed.

The initial forecasts of demand and the initial orders for service form part of the agreement and would be included as schedules. As forecasts, service descriptions and tariffs are updated and as orders for new services, new points of interconnection and additional/changed capacity are added the agreement will evolve. The agreement together with the various annexes and schedules need to

be brought under tight change control so that each party is aware at all times of the details of the agreement in force.

The remainder of this document consists of:

- An example of Agreement Terms;
- Annex 1 Outlines of the key processes;
- Annex 2 Geographic information about the location at which the services are available;
- Annex 3 Technical Standards;
- Annex 4 Model service definitions

Each of these sections should be taken as being indicative of the content that the Authority may consider acceptable in the event that the parties are unable to reach agreement and refer to the Authority for resolution.

## 2 Example template for Agreement Terms

This access agreement (this “Agreement”) is entered into this .....day of .....20..... between [Providing Operator name] (“Providing Operator”) and [Using Operator name] (“Using Operator”), (the “Parties”).

### 2.1 Recitals

Whereas, the Providing Operator is licensed under the Information and Communications technologies Act 2009 (the “Act”) and the Regulations promulgated thereunder from time to time by the Zambia Information and Communications Authority (“ the Authority”) to establish, install, operate and use a electronic communications System for the provision of Electronic communications Services in Zambia;

Whereas, the Using Operator is licensed under Section 12 of the Act and the Authority Regulations promulgated thereunder to establish, install, operate and use a electronic communications System for the provision of Electronic communications Services in Zambia;

Whereas, Using Operator wishes to extend the range or reach of services it can provide by making use of Access Services supplied by Providing Operator;

Whereas, in order for Using Operator to use its respective Electronic communications Systems to provide the broadest range of services to the largest number of people in Zambia and as required by their respective licences in accordance with the principles of neutrality, non discrimination and equality of access, Providing Operator and Using Operator have elected to connect their respective systems.

Now, therefore, in consideration of the foregoing and of the mutual covenants and agreements contained in this Agreement, and intending to be legally bound thereby, the Parties hereby agree as follows:

#### 2.1.1 Article 1: Scope

The purpose of connecting the systems of the Providing Operator and the Using Operator is to allow the Using Operator to offer a range of services to end users and to other operators.

This agreement establishes the conditions under which the Providing Operator system and the Using Operator system may be connected to provide electronic communications services. This agreement establishes how the parties will provide, serve and invoice a range of services.

#### 2.1.2 Article 2: Definitions

Terms and expressions defined in the Act or the [Access Regulations] promulgated thereunder shall have the same meanings when used in this Agreement.

*Additional definitions used by the Parties to be included here.*

#### 2.1.3 Article 3: Connection

The parties will connect their networks as set out in the schedules to this agreement. Other than by mutual written agreement or with the written agreement of the Authority the networks will be kept connected at all times

The Parties may connect with any other licensed operator in Zambia. Neither party shall require the other to connect to its facilities on an exclusive basis.

Connection may be effected using capacity within an existing Interconnection Link provided under a separate Interconnection Agreement where such a link exists, using infrastructure provided by the Using Operator, or using network infrastructure provided by a third party. In all cases traffic of a third party may be passed over the connection.

Connection pursuant to this Agreement shall conform with international standards and operating guidelines which have been adopted by the Authority as applying to Electronic communications Services in Zambia.

It shall be the responsibility of each Party to implement, maintain and update as appropriate its own network.

#### **2.1.4 Article 4: Payment**

Payment shall be of the amounts due for the services provided as set out in the annexes to the extent that the service has been provided in accordance with the billing process set out in the Annexes.

#### **2.1.5 Article 5: Traffic forecasts, capacity orders**

The Using Operator shall provide forecasts of expected traffic and/or capacity required in accordance with the process set out in the Annexes.

The Using Operator will use their best efforts to provide accurate forecasts. Such forecasts shall not be legally binding, except to the extent provided for in this agreement and the annexes including the relationship between forecast traffic, actual traffic and the Quality of Service level that applies.

The Using Operator will place orders for new points of connection, for additional services and for additional capacity as applicable following the process set out in the schedules.

#### **2.1.6 Article 6: Fraud**

The Parties will cooperate with one another and with third parties to minimise, detect and investigate fraud. The Parties will individually and collectively take corrective action in cases where fraud has occurred, is occurring or is suspected of occurring. The Parties' fraud minimisation processes are to be cost effective and implemented so as not to unreasonably burden or harm any one Party as compared to the other. As a minimum, such cooperation shall include the process set out in the annexes.

#### **2.1.7 Article 7: Number portability and Directory Information**

The Parties may agree to support the transfer of numbers between their networks to the extent that that this is possible under the National Numbering Plan and shall so agree where required under any applicable Regulations issued by the Authority .

Where the Parties have agreed to support transferring a number from one Party's network to the other then the donor Party may decline to allow a particular number to be ported if there are unpaid



charges associated with that number, until such unpaid charges are settled, or it is agreed that such charges are waived, or were incorrect.

Each party shall provide directory information giving customer name, address and phone number information in an agreed format at intervals of three months or less, or will provide real time access to a suitable directory system that provides such information in an agreed format.

#### **2.1.8 Article 8: Limitation of Liability, indemnification**

Neither party has an obligation of any kind to the other Party beyond the obligation to exercise reasonable skill and care in operating according to the provisions of this Agreement. Neither party undertakes any liability for the acts nor omissions of a third party provider to Electronic communications Services, except to the extent the third party was an agent of a Party with respect to any act or omission that gives rise to liability hereunder.

Each of the Parties agrees to release, indemnify, defend and hold harmless the other Party from all losses, claims, demands, damages, expenses, suits or other actions, or any liability whatsoever, including, but not limited to, costs and attorneys' fees, whether suffered, made, instituted, or asserted by any other party or person, for invasion of privacy, personal injury to or death of any person or persons, or for loss, damage to, or destruction of property, whether or not owned by others, resulting from the indemnifying Party's performance or failure to perform under this Agreement, regardless of the form of action.

The indemnification provided for above shall be subject to the following:

The indemnified Party shall promptly notify the indemnifying Party of any action taken against the indemnified Party relating to the indemnification.

The indemnified Party shall have sole authority to defend any such action, including the selection of legal counsel, and the indemnified Party may engage separate legal counsel only at its sole cost and expense.

In no event shall the indemnifying Party settle or consent to any judgement pertaining to any such action without the prior written consent of the indemnified Party.

#### **2.1.9 Article 9: Provision of information**

[Note - Providing Operator will provide comprehensive details of elements of its network on written request in advance of concluding an agreement sufficient to allow the Using Operator to establish whether Access services may be available appropriate to its needs. The Operators may enter into a confidentiality agreement to facilitate the release of information]

The Providing Operator will provide appropriate technical and geographic information including, but not limited to, information regarding network control and management, as is reasonably required for connection and the provision of Access services. Additionally, detailed operating performance and quality standard information will be provided.

Pursuant to the Authority regulations, the Parties shall file a copy of this Agreement with the Authority. Following the filing of this Agreement each Party shall provide the Authority with such information as the Authority may

request from the Parties individually, and shall share the costs of providing any such information that as the Authority may request of them jointly.

#### **2.1.10 Article 10: Confidentiality**

Either Party may disclose to the other proprietary or confidential Customer, technical, or business information in written, graphic, oral or other tangible or intangible forms (“Confidential Information”). In order for information to be considered Confidential Information under this Agreement, it must be marked “Confidential” or “Proprietary”, or bear a marking of similar import. Orally disclosed information shall be deemed Confidential Information only if contemporaneously identified as such and reduced to writing and delivered to the other Party with a statement or marking of confidentiality within twenty (20) calendar days after oral disclosure.

In order to protect such Confidential Information from improper disclosure, each Party agree:

- That all Confidential Information shall be and shall remain the exclusive property of the source;
- To limit access to such Confidential Information to authorised employees who have a need to know the Confidential Information for the performance of this Agreement;
- To keep such Confidential Information confidential and to use the same level of care to prevent disclosure or unauthorised use of the received Confidential Information as it exercises in protecting its own Confidential Information of a similar nature;
- Not to copy, publish or disclose such Confidential Information to others, or to authorise anyone else to copy, publish, or disclose such Confidential Information to others without prior written approval of the source;
- To return promptly any copies of such Confidential Information to the source at its request; and
- To use such Confidential Information only for the purposes of fulfilling work or services performed hereunder and for other purposes only upon such terms as may be agreed upon between the Parties in writing.

These obligations shall not apply to any Confidential Information that was legally in the recipient’s possession prior to receipt from the source, was received in good faith from a third party not subject to a confidential obligation to the source,, now is or later becomes publicly known through no breach of confidential obligation by the recipient, was developed by the recipient without the developing persons having access to any of the Confidential Information received in confidence from the source, or that is required to be disclosed pursuant to judicial process or by the Authority or another governmental agency having appropriate jurisdiction, provided, however, that the recipient shall give prior notice to the source and shall reasonably cooperate if the source deems it necessary to seek protective arrangements.

The obligation of confidentiality and use with respect to Confidential Information disclosed by one Party to the other shall survive any termination of this Agreement.

#### **2.1.11 Article 11: Intellectual Property**

Nothing in this Agreement shall grant, suggest, or imply any authority for one Party to use the name, trademarks, service marks, or trade names of the other for any purpose whatsoever.

Neither Party shall have any obligation to defend, indemnify or hold harmless, or to acquire any licence or right for the benefit of, or owe any other obligation to have any liability to, any other based on or arising from any claim, demand or proceeding by any third party alleging or asserting that the use of any circuit, apparatus, or system, or for the use of any software, or the performance of any service or method, or the provision of use of any facilities by either Party under this Agreement constitutes direct or contributory infringement, or misuse or misappropriation of any patent, copyright, trademark, trade secret, or any other proprietary or intellectual property right of any third party.

#### **2.1.12 Article 12: Force Majeure**

Each Party shall be excused from its performance under this Agreement only to the extent, and for so long as, such performance is hindered or prevented by an Act of God, fire, flood or other natural disaster, act of government or state, war, civil commotion or insurrection, riots, embargo, prevention from or hindrance in obtaining any materials, energy or other supplies, unlawful labour strikes outside the control of either Party and any other cause beyond the control of either Party.

Neither Party shall be liable to the other for any default arising from force majeure.

#### **2.1.13 Article 13: Term and termination**

This Agreement shall be for a renewable fixed term unless ; :

- either Party ceases to hold a licence under the Act and the Authority Regulations;
- an order is entered by a court of competent jurisdiction mandating the winding up or dissolution of a Party, or appointing a receiver or liquidator for such Party or having a comparable effect; or
- it is replaced by mutual agreement of the Parties or by order of the Authority in accordance with the provisions of Article 63 of the Act,

in which case this Agreement shall immediately be terminated.

Subject to the Parties obtaining the prior written approval of the Authority to any disconnection of systems and equipment, this Agreement also may be terminated by either Party giving six months notice to the other in the event that either Party:

- is in material and/or repeated breach of any provision of this Agreement; provided, however, that the breaching party has been notified in writing of its failure by the non-breaching party and the breaching party has not remedied its failure within twenty (20) working days; or,
- Ceases to carry on business.

Upon termination of this Agreement each Party shall take such steps and provide such facilities as are necessary for recovery by the other Party of any equipment supplied by that other Party.

Termination of this Agreement shall be without prejudice to a Party's rights, liabilities or obligations that may have accrued prior to such termination.

**2.1.14 Article 14: Governing Law**

This Agreement, the legal relations between the Parties and any claim instituted by any Party with respect to matters arising under or in connection with or in respect of this Agreement, including but not limited to the negotiation, execution, interpretation, coverage, scope, performance, breach, termination, validity, or enforceability of this Agreement, shall be governed by and construed in accordance with the laws of the Zambia without regard to conflict of law rules.

**2.1.15 Article 15: Assignability**

This Agreement and all of the provisions hereof shall be binding upon the Parties and their respective successors and assigns. Neither this Agreement nor any of the rights, interest or obligations hereunder shall be assigned by any Party without the prior written consent of the other Party hereto, provided that the consent shall not be unreasonably withheld

**2.1.16 Article 16: English Language**

This Agreement has been executed in the English Language which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Agreement.

**2.1.17 Article 17: Headings; Plural and Singular**

The headings contained in this Agreement are for descriptive purposes only and shall not be considered a part hereof for purposes of determining the Parties' rights and obligations hereunder. Any of the terms defined herein may, unless the context otherwise requires, be used in the singular or the plural, depending on the reference.

**2.1.18 Article 18: Entire Agreement**

This Agreement represents the entire understanding between the Parties in relation to interconnection and supersedes all previous understandings, agreements or commitments whatsoever, whether oral or written. All references to articles, sections, clauses, annexes shall be deemed references to such part of this Agreement, unless the context shall otherwise require.

**2.1.19 Article 19: Notices**

Unless otherwise provided in the Agreement, any notifications, service of process, petitions, claims and other Communications requested or permitted pursuant to this Agreement, shall be made in writing and shall be considered validly made when delivered by hand or by courier, facsimile once receipt is verified at the following addresses.

If to (Providing Operator) Address .....  
Attention .....  
  
With a copy to Address .....  
Attention .....  
  
If to (Using Operator) Address .....  
Attention .....



In witness whereof, the parties (Operators) have executed this Agreement the day and year first before written.

For (Providing Operator)

By

Name Title

Witnessed

For (Using Operator)

By

Name Title

Witnessed

### **3 Annex 1: Outline of Key Processes**

Note – The outlines included here provide an indication of the processes that may be needed for the make the services covered by an agreement usable. Until such time as the industry develops or adopts detailed processes, potentially supported by automated systems, to cover these activities it is expected that the operators will agree detailed interfaces and processes meeting their needs.

#### **3.2 Annex 1.2: Ordering**

Requests for services within the levels included in the agreed forecast will be provided within the timescales set out in the quality of service parameters for the particular services.

Where a request for capacity included in an existing agreed forecast cannot be fulfilled within the timescales set out in the quality of service parameters, the provider will supply a statement clearly stating the current capacity and the requested capacity, setting out the current agreed forecast provided by the seeker for the service, explaining the delay, and setting a series of dates by which the capacity will be provided, where appropriate, in stages, to the full required capacity. A copy of this statement will be sent to the Authority.

Requests for services in excess of the forecast will be provided on a best endeavours basis.

Where sufficient capacity is not available to meet an order, the provider will supply an explanation of the reasons why the full amount of capacity requested cannot be provided by the requested date, including, where appropriate, a statement of when the full requested capacity could be provided, and

a statement of how much capacity could be provided by the requested date. A copy of this statement will be sent to the Authority.

### **3.3 Annex 1.3: Implementation and testing**

The parties will work together to agree an implementation plan for any new service or service upgrade. Once developed the parties will keep each other regularly informed of progress, and of any expected delays, giving reasons. Where delays are unacceptable and considered unjustified, either party may refer the matter to the Authority for consideration.

The parties will cooperate in agreeing a test schedule and in carrying out appropriate testing to verify the service has been provided and configured and is operating as expected, in accordance with the relevant standards and specifications. Testing may involve load testing, and/or may involve operation for a defined period to show system stability etc.

Once the service has been jointly tested and found to meet the specification, the service will be formally accepted and will then be ready to be introduced to live service.

### **3.4 Annex 1.4: Operation and management**

Periodically at the instance of either party, the interconnected operators will meet to review the performance of each of the interconnect services being provided. Prompt and appropriate action will be taken in situations where the provider fails to meet the agreed Quality of Service levels, particularly where there is a repeating pattern of failure. Where there is evidence of repeated failure to meet Quality of Service levels, or of ineffective action being taken to assure Quality of Service levels will be met, the Using Operator may inform the Authority of the circumstances and ask for an intervention.

### **3.5 Annex 1.5: Billing and billing disputes**

The Providing Operator will be responsible for determining the extent of the service used, and for preparing a bill for the services. The Using Operator is responsible for checking and settling the bill within the agreed settlement period.

Where a dispute arises over all or part of a sum a dispute will be raised. Where the individual sum in dispute is less than ZMW X and the total of all sums in dispute that have not been settled is under ZMW Y, then the disputed sum will be paid in full pending investigation and final settlement. Where a disputed sum exceeds ZMW X or where the total of all sums in dispute that have not been settled exceeds ZMW Y then the disputed sum will not be paid until agreement has been reached to settle the sum, and either party may provide evidence to the Authority requesting intervention to reach a binding settlement within 45 days. Where the Authority has investigated and reached a conclusion, the Authority conclusion will be binding, and the parties will settle the dispute within 15 working days of the Authority decision.

Where the total of unpaid or disputed sums in a period exceeds 10% of the total billed and due for payment in the same period then the provider may refer the matter to the Authority for investigation including proposals for appropriate action. The Authority will investigate within 20 working days providing a binding conclusion to both parties. In extreme cases where it can be shown that the default will lead to significant and unacceptable financial exposure for either party, the Authority may



authorise disconnection of the operators within 30 days and will publicise this intention accordingly. Under no circumstances will the parties degrade connection between their networks, or disconnect their networks, without either prior agreement between the parties, or, in the absence of such agreement, with the agreement of the Authority and following appropriate public notice.

### **3.6 Annex 1.6: Network changes**

Where the Providing Operator identifies a need to make a change to its network which will, or may, affect the Using Operator, then the Providing Operator must give as much notice as possible and in any case no less than six months notice of the intended change, identifying the likely impact of the proposed change. The Providing Operator will provide a plan of how the Operators may work together to effect the change with minimal effect on the services provided to end users. The Providing Operator will pay any actual costs the Using Operator incurs as a direct consequence of the change.

### **3.7 Annex 1.7: Fault handling**

A process will be agreed between the parties for reporting faults or suspected faults. Where possible the process should be automated (e.g. based on exchange of reports using email or other electronic means) to ensure that a full and accurate record of the report is kept. The process will include appropriate acknowledgements including timestamps on all key exchanges.

Once a fault report is passed between Operators the receiving operator is responsible for investigating the report and, where appropriate, taking action to restore service if a fault is found within their network, or in the network of third parties on which the service relies, within the timescales set out in the quality of service parameters. The operator receiving the fault report will provide regular updates on the progress of the investigation and steps being taken to restore service. Once the operator investigating the fault believes that it has been cleared the reporting operator will be informed and the reporting operator will then verify and acknowledge the fault has been cleared.

Where a fault has a significant impact on either Operator, and where practical, the Operators will work together to take appropriate action to restore as much service as possible within the shortest possible time, including, where appropriate and where agreed, temporary measures to minimise the effects of serious network faults.

Where the same or a similar fault recurs frequently the investigating operator will carry out a more detailed investigation into the cause of the fault, and take appropriate action. Where the same or similar faults are detected more than X times in Y months a report will be prepared and submitted to the Authority for collation and further investigation by the Authority as is deemed appropriate.

### **3.8 Annex 1.8: Fraud investigation**

The Parties will cooperate to detect, investigate and identify sources of actual or suspected activity leading to fraud whether against either of the parties or against third parties. Each party will promptly and efficiently take all reasonable action to assist the other in investigating such activity on request and will alert the other if any activity is detected or suspected that may be fraudulent in nature and which may in any way harm the other. Such cooperation may include sharing information which may not otherwise be available to the other party, and may include technical intervention to establish the source of such activity.

### **3.9 Annex 1.9: Dispute handling**

Disputes, other than those relating to billing, as provided for above will be resolved in accordance with the relevant article in the operators' licence and the regulations of the Authority.

During the period of any dispute, before or until resolution by means of arbitration, a Party shall not disrupt service being provided to the other Party, change any level of service being provide to that Party or take any other actions which might materially or adversely affect that Party's service.

## 4 Annex 2

### 4.1 Annex 2.1 Location of points where Access Services are offered by Providing Operator

Connection is currently available on request at the following locations:

Location	Region	Services available	Radio	Fibre	Interfaces available
Town and Street address, or lat/long		e.g. Distribution frame from which Exclusive Local Loop service is available, Site at which Access is available to Transmission elements, etc	Yes / No	Yes / No	e.g. Copper interface, E1, STM1 GE etc

Connection may be offered on request at the following locations:

Location	Region	Services available	Radio	Fibre	Interfaces available
Town and Street address, or lat/long		e.g. Distribution frame from which Exclusive Local Loop service is available, Site at which Access is available to Transmission elements, etc	Yes / No	Yes / No	e.g. Copper interface, E1, STM1 GE etc
...					

The Using Operator may request connection at other points in the Providing Operator's network. On receipt of such a request the Operator will carry out a technical investigation and will provide a report into the technical feasibility within 45 working days, offering, where appropriate, an alternative location that is physically close if connection is not found to be technically possible at the requested location.

In all cases a copy of the request will be sent by the requester to the Authority and a copy of the results of the technical investigation will be sent by the provider to the Authority who may carry out further investigation as appropriate.

Where a new point of connection is established, this point will be added to the list of points of connection within one month, and the revised list will be distributed to all operators with which there is an Interconnection or Access agreement in force.

## 5 Annex 3

### 5.1 Annex 3.1: Technical standards

All interfaces, particularly the interface to the user's equipment, shall meet recognised international standards where these are available. The Authority may from time to time publish lists of standards which are to be adopted.

The Authority will from time to time set service quality levels for the performance of communications services. These levels apply to the end to end service; the operators will need to agree how the service quality for the individual elements they provide contribute to the overall service quality. Where an end user service is delivered using the networks of more than one operator it is important to ensure that links between the networks are capable of supporting the required end to end service quality as experienced by the end user.

### 5.2 Annex 3.2: Traffic planning

Where the nature of the Access Service in question excludes shared elements (for example an Exclusive Local Loop) then the Using Operator is responsible for all aspects of traffic planning including ensuring adequate capacity is available to handle peaks in demand.

Where the nature of the Access Service in question includes shared elements (for example the DLSAM forming part of a Broadband Loop Channel Service) then the Providing Operator must ensure adequate capacity is provided in the shared elements to handle the peak traffic forecast by Using Operator, with Using Operator being responsible for all other aspects of traffic planning to ensure service quality is defined and any requirements are met.

### 5.3 Annex 3.3: Links carrying voice telephony

For any transmission links used to carry voice telephony traffic between networks:

the technical parameters of the links and the traffic passed over the links will comply with the relevant ITU standards covering parameters such as jitter, wander etc.

they will be designed to give an availability of 99% or better taking into account the beneficial effect of any redundancy that has been provided.

the percentage of severely errored seconds will be 0.05% or less.

error free seconds will be 99.50% or better.

the occurrences of intermittent breaks in service on individual links of greater than 10 seconds averaged over a rolling one year period shall be limited as follows:

- Break free days will be 85% or better
- Days with 1 break no more than 10%
- Days with more than 1 break no more than 5%

## 5.4 Annex 3.4: Signalling

Where Access services require signalling information to be passed between the networks the Signalling system will use the ITU Standards:

# 6 Annex 4:

## 6.1 Annex 4.1 Services offered by Providing Operator

### 6.1.1 Notes

*Note 1 – While this Annex is intended as a guide to the types of Access Services that the Authority expects to see available from operators, its contents are not intended to be an exhaustive list of all Access Services, and neither is it expected that all services will be offered by all operators. The service descriptions in the following sections are very general and very brief lacking the detail that would be expected in any actual Access Agreement. The necessary detail is a matter for the operators involved to define and agree during the negotiation process or within their standard offer document.*

*Note 2 – Use of Access Services will require one or more links between the Providing Operator and Using Operator networks to carry the communications traffic. There are three different approaches to the provision of this link. It could be:*

*provided under an Interconnection Agreement using spare capacity within an Interconnect Link;*  
*constructed under an Access Agreement using a Transmission Element Service supplied by the Providing Operator; or,*  
*constructed under a Co-location Agreement with the Using Operator's cable taken into the Providing Operator's location and connected to the relevant Using Operator's, Providing Operator's or Third Party's equipment.*

*For this reason there is no "Connecting Link" service in the schedule*

*Note 3 – The times for delivery of various local loop services are highly dependent on the capability of the operator concerned to identify, model and test their local infrastructure.*

*Note 4 – The range of Local loop products are not required until an investigation has been undertaken by the Authority into the relevant markets.*

*Note 5 – The potential range of individual Transmission and Aggregation Disaggregation Element Services that could be defined depends on the range and extent of technologies deployed in the operator's networks. The number of potential individual services is enormous. It is likely that there will be a few useful services that can be offered from the any one operator based on their core network, together with many more services that could be identified based on legacy and specialist network elements. It is recommended that the Authority investigates with the key operators a small number of basic services, such as an E1 channel, for inclusion in the MAO, and allows operators to reach agreement on other bespoke services as needed. This will help the market to focus on the*

*services that are desired and to avoid expending resources specifying services that may not be useful.*

Local Loop Access Services  
Transmission Access Services  
International Access Services  
Systems Access Services

## **6.1.2 Annex 4.1.1 Exclusive Local Loop Service (See notes 3 and 4)**

### **Service description**

Access for connection to a metallic Local Loop to the desired terminal location will be provided at the main distribution frame including cross connection at any intervening flexibility points and including the final drop wire and termination point at the desired address. The loop will be available for the exclusive use of the Using Operator. Connection will be made at the main distribution frame to a copper tie cable installed under a (separate) co-location agreement in turn connected to suitable equipment provided and operated by the Using Operator. The Using Operator may use the loop to provide telephony, leased line, broadband or other services, subject to reasonable, agreed technical restrictions that assure disruptive interference with other services in the same cables is avoided, the safety of staff and users is assured, and damage to the cables is prevented.

### **Quality of Service parameters applicable**

The technical performance of the local loop will be predicted on a loop by loop basis taking into account the length of the loop, the cable type and age. The prediction will be based on a performance prediction model agreed between the parties, taking into account the potential existence of crosstalk from other loops in the same cable route. Where the performance of the actual loop selected falls below the prediction the Providing Operator will, where practical, change the connection to a loop offering the predicted performance before offering the loop to the Using Operator.

The availability of a loop from the main distribution frame to the desired location together with the predicted performance will be provided within X working days of a valid request being received.

At main distribution frames where a tie cable with available capacity is available the loop will be provided following receipt of a valid order:

where the final drop and termination point already exist, on the requested date, subject to a minimum of Y working days; and,  
where the final drop and termination point have to be installed, on the requested date, subject to a minimum of Z working days.

At main distribution frames where a tie cable with available capacity is not available the loop will be provided following receipt of a valid order on the requested date subject to a minimum of Y working days after the necessary capacity being made available.

Testing of the actual technical parameters of a specific loop will be carried out within one working day of a valid request being made using a test process to be agreed between the parties.

### **Charging**

Charging will be made on a per event basis for providing initial availability and performance predictions, for connection, for installation of a final drop and/or termination point, for testing, and for disconnection.

Charging will be made on a per month basis for use of each Exclusive Loop.

### **6.1.3 Annex 4.1.2: Exclusive Sub Loop Service (See notes 3 and 4)**

#### **Service description**

Access for connection to a Local Loop to the desired location will be provided at an agreed flexibility point (e.g. street side cabinet) including cross connection at any intervening flexibility points and including the final drop wire and termination point at the desired address. The loop will be available for the exclusive use of the Using Operator. Connection will be made at the flexibility point to a copper tie cable installed under a (separate) co-location agreement in turn connected to suitable equipment provided and operated by the Using Operator. The Using Operator may use the loop to provide telephony, leased line or broadband services, subject to reasonable, agreed technical restrictions that assure disruptive interference with other services in the same cables is avoided, the safety of staff and users is assured, and damage to the cables is prevented.

#### **Quality of Service parameters applicable**

The technical performance of the sub local loop will be predicted on a loop by loop basis taking into account the length of the loop, the cable type and age using a performance prediction model agreed between the parties, taking into account the potential existence of crosstalk from other loops in the same cable route. Where the performance of the actual loop offered falls below the prediction the Providing Operator will, where practical, change the connection to a loop offering the predicted performance.

The availability of a sub loop from the flexibility point to the desired location together with the predicted performance will be provided within two working days of a valid request being made.

At flexibility points where a tie cable with available capacity is available the loop will be provided within three working days of ordering where the final drop and termination point already exist, and within five working days where the final drop and termination point have to be installed.

At flexibility points where a tie cable with available capacity is not available the loop will be provided within three working days of that capacity being made available.

Testing of the actual technical parameters of a particular sub loop will be carried out within one working day of a request being made using a test process to be agreed between the parties.

#### **Charging**

Charging will be made on a per event basis for providing initial availability and performance predictions, for connection, for installation of a final drop and/or termination point, for testing, and for disconnection.

Charging will be made on a per month basis for use of each Exclusive Sub Loop.



#### **6.1.4 Annex 4.1.3: Shared Local Loop Service (See notes 3 and 4)**

##### **Service description**

Access for connection to the broadband capacity of a metallic Local Loop to the desired location will be provided at the main distribution frame including cross connection at any intervening flexibility points and including the final drop wire and termination point at the desired address. The broadband capacity of the loop will be available for the exclusive use of the Using Operator, with the Providing Operator free to provide basic telephony services over the baseband part of the loop's capacity. Connection will be made at the main distribution frame to a splitter and then to a copper tie cable installed under a (separate) co-location agreement in turn connected to suitable equipment provided and operated by the Using Operator. The Using Operator may use the loop to provide broadband services, subject to reasonable, agreed technical restrictions that assure disruptive interference with other services in the same cables is avoided, the safety of staff and users is assured, and damage to the cables is prevented.

##### **Quality of Service parameters applicable**

The technical performance of the local loop will be predicted on a loop by loop basis taking into account the length of the loop, the cable type and age using a performance prediction model agreed between the parties, taking into account the potential existence of crosstalk from other loops in the same cable route. Where the performance of the actual loop offered falls below the prediction the Providing Operator will, where practical, change the connection to a loop offering the predicted performance.

The availability of a loop from the flexibility point to the desired location together with the predicted performance will be provided within two working days of a valid request being made.

At flexibility points where a tie cable with available capacity is available the loop will be provided within three working days of ordering where the final drop and termination point already exist, and within five working days where the final drop and termination point have to be installed.

At flexibility points where a tie cable with available capacity is not available the loop will be provided within three working days of that capacity being made available.

Testing of the actual technical parameters of a particular loop will be carried out within one working day of a request being made using a test process to be agreed between the parties.

##### **Metering and charging**

Charging will be made on a per event basis for providing initial availability and performance predictions, for connection, for installation of a final drop and/or termination point, for testing, and for disconnection.

Charging will be made on a per month basis for use of each Shared Local Loop.

## **6.1.5 Annex 4.1.4: Shared Sub Loop Service (See notes 3 and 4)**

### **Service description**

Access for connection to a Shared Sub Local Loop to the desired location will be provided at an agreed flexibility point (e.g. street side cabinet) including cross connection at any intervening flexibility points and including the final drop wire and termination point at the desired address. The broadband capacity of the shared sub loop will be available for the exclusive use of the Using Operator, with the Providing Operator free to provide basic telephony services over the baseband part of the loop's capacity. Connection will be made at the flexibility point to a copper tie cable installed under a (separate) colocation agreement in turn connected to suitable equipment provided and operated by the Using Operator. The Using Operator may use the broadband capacity of the loop to provide telephony, leased line or broadband services, subject to reasonable, agreed technical restrictions that assure disruptive interference with other services in the same cables is avoided, the safety of staff and users is assured, and damage to the cables is prevented.

### **Quality of Service parameters applicable**

The technical performance of the shared sub loop will be predicted on a loop by loop basis taking into account the length of the loop, the cable type and age using a performance prediction model agreed between the parties, taking into account the potential existence of crosstalk from other loops in the same cable route. Where the performance of the actual loop offered falls below the prediction the Providing Operator will, where practical, change the connection to a sub loop offering the predicted performance.

The availability of a sub loop from the flexibility point to the desired location together with the predicted performance will be provided within two working days of a valid request being made.

At flexibility points where a tie cable with available capacity is available the loop will be provided within three working days of ordering where the final drop and termination point already exist, and within five working days where the final drop and termination point have to be installed.

At flexibility points where a tie cable with available capacity is not available the loop will be provided within three working days of that capacity being made available.

Testing of the actual technical parameters of a particular loop will be carried out within one working day of a request being made using a test process to be agreed between the parties.

### **Metering and charging**

Charging will be made on a per event basis for providing initial availability and performance predictions, for connection, for installation of a final drop and/or termination point, for testing, and for disconnection.

Charging will be made on a per month basis for use of each Shared Local Loop.

## **6.1.6 Annex 4.2.1: Broadband Local Loop Channel Service (See notes 3 and 4)**

### **Service description**

Access will be provided to the broadband channel within a metallic local loop connected at one end to a termination unit at the desired user location and at the other to a shared DSLAM or equivalent within the Providing Operator's network. The Using Operator is responsible for provision of a suitable broadband modem at the user site, and for connection of its network to the DSLAM (which may be achieved using other Access Services). The Using Operator has exclusive use of the broadband channel over the local loop. The Providing Operator may use the loop's baseband channel for telephony services.

### **Quality of Service parameters applicable**

The technical performance of the broadband local loop will be predicted on a loop by loop basis taking into account the length of the loop, the cable type and age. The prediction will be based on a performance prediction model agreed between the parties, taking into account the potential existence of crosstalk from other loops in the same cable route. Where the performance of the actual loop offered falls below the prediction Providing Operator will, where practical, change the connection to a loop offering the predicted performance.

The availability of a broadband local loop from the main distribution frame to the desired location together with the predicted performance will be provided within one working day of a valid request being made.

At main distribution frames where a DSLAM or equivalent connected to the User Operator's network with available capacity is available the loop will be provided:

- within three working days of receipt of a valid order where the final drop and termination point already exist; and,
- within five working days where the final drop and termination point have to be installed.

At main distribution frames where DSLAM or equivalent connected to User Operator's network with available capacity is not available the loop will be provided within three working days of that capacity being made available.

Testing of the actual technical parameters of a particular loop will be carried out within one working day of a valid request being made using a test process to be agreed between the parties.

### **Charging**

Charging will be made on a per event basis for providing initial availability and performance predictions, for connection, for installation of a final drop and/or termination point, for testing, and for disconnection.

Charging will be made on a per month basis for use of each Broadband Local Loop Channel.

## 6.1.7 Annex 4.3.1: Transmission Element Service (See note 5)

### Service description

Access will be provided to transmission elements allowing transmission links to be established between points in the provider's network. Access will be provided where links exist and within which there is spare capacity, or to which it is feasible to add capacity. The service will be available in at least three configurations, including:

- Providing Operator site to Using Operator site
- Using Operator site to Using Operator site
- Using Operator site to third party site

The availability of transmission speeds and technology made available will be the same as is available in the existing network.

This service may be used in combination with the Transmission Aggregations and Disaggregation Elements Service.

(Note - The service provides a point to point transmission link, the service may include multiplexing equipment within the provider's network and so the two ends of the link may not be at the same transmission level. As an example, one end maybe a 64Kbps service over a copper cable at an end user site, the other end may be the same 64Kbps stream existing as a time slot within a 2048Kbps service on a fibre or radio system. In such cases the required data stream will typically be mixed with data of other operators within the higher order transmission system and the Using Operator will need to take a suitable Aggregation and Disaggregation Element Service at that location to separate the required data onto another transmission link or connection link.)

This service may be used with the Transmission Element, Aggregation and Disaggregation Service allowing the Using Operator to construct any technically feasible network configuration within the Providing Operator's existing transmission network, and including all necessary cabling, cross connecting and management. Disclosure of comprehensive details of the Providing Operator's transmission network necessary to plan, evaluate, design and configure a combination of this service together with the Transmission Aggregations and Disaggregation Elements Service to met the Using Operator's requirements will be provided on request under the confidentiality clause contained in this Agreement.

On request, and subject to availability of suitable collocation facilities, one or both ends of the service may be connected to the Using Operator's own equipment, or equipment of a third party, accommodated at a Providing Operator's location, or to a cable owned by the seeker or a third party at a provider's location. Any necessary collocation arrangements will be under a separate agreement. The service will include any necessary cabling within the location in such circumstances.

Where radio systems are used to provide all or part of the transmission links the service includes any necessary radio spectrum permissions.

### Quality of Service parameters

The Quality of Service parameters for this service will be subject to discussion and agreement between the parties, but will be no worse than the quality of service implied from any other service the supplier provides to its own business, to any existing end user, or is prepared to provide to a

potential end user on request. Where the provider offers end users assured service levels to third parties with financial penalties for services including similar transmission links, the same assurance and penalties will apply to this service.

### **Charging**

The charge for the service will be based on the actual transmission links used. Charges for connection, reconfiguration, disconnection etc will be made on an event basis. The services will be billed monthly.

## **6.1.8 Annex 4.3.2: Transmission Aggregation and Disaggregation Elements Service (See notes 5)**

### **Service description**

This service is only available in combination with the Transmission Elements Service.

The service allows a network to be built within the Providing Operator's network using either only Providing Operator's transmission elements, or any combination of Using Operator's equipment, that of a third party, and Providing Operator's elements.

The service provides connection to any aggregation, disaggregation, grooming, cross connection, multiplexing, demultiplexing or other systems that allow technically feasible access to transmission capacity at any technically feasible speed irrespective of technology used that can be provided by the Providing Operator's existing transmission network, or which could be provided with the addition of capacity or a facility and where it is feasible to add that capacity or facility at the appropriate locations.

The service includes any and all necessary configuration, cabling and cross connection, and includes any necessary management, maintenance, power and accommodation.

Designing and configuring a combination of this service together with the Transmission Elements Service to meet the Using Operator's requirements will require disclosure of comprehensive details of the provider's transmission network, which will be provided on request under the confidentiality clause contained in this Agreement.

### **Quality of Service parameters**

The Quality of Service parameters for this service will be subject to discussion and agreement between the parties, but will be no worse than the quality of service implied from any other service the supplier provides to its own business, to any existing end user, or is prepared to provide to a potential end user on request. Where the provider offers end users assured service levels to third parties with financial penalties for services including similar transmission links, the same assurance and penalties will apply to this service.

### **Charging**

The charge for the service will be based on the actual elements provided and will be set out in a tariff table for the specific services to be provided. Event based charges will apply for connection, reconfiguration and disconnection activities. The services will be billed monthly.

## **6.1.9 Annex 4.4.1: International Transmission Service**

### **Service description**

Dedicated transmission capacity will be provided between the Providing Operator's network in Zambia and international locations, including (optionally) connection to end user locations in the distant country. The service will be provided using the Providing Operator's copper, fibre, satellite, submarine or other network technology based on SDH, PDH, IP, or other transmission technology, or a mix where appropriate.

(Each instance of the service will be bespoke design)

### **Quality of Service parameters applicable**

(Details to be defined and agreed between the parties)

### **Charging**

(Details to be defined and agreed between the parties)

#### **6.1.10 Annex 4.4.2: International Conveyance Service**

##### **Service description**

Access will be provided to circuit switched or routed networks allowing TDM or IP based telephony or other traffic to be delivered to or received from international countries over satellite, fibre, submarine and other types of connection.

(Details of the services available are operator specific, and will be agreed between the parties)

##### **Quality of Service parameters applicable**

(Details to be agreed between the parties, taking account of the standards set from time to time by the regulator and the technologies being utilised)

##### **Metering and charging**

(Details to be agreed between the parties)



## **6.1.11 Annex 4.5.1: Information and Information System Access Service**

### **Service description**

Access will be provided to relevant physical and electronic data sources and computer systems used by the Providing Operator for the purpose of planning, ordering, providing, operating, maintaining and ceasing Access or other Providing Operator services. Access will be limited to the extent necessary to protect the Providing Operator's network, its business and its customers. The Using Operator will be expected to comply with reasonable, robust confidentiality and data protection measures and to prevent unauthorised or malicious use of any systems or information, or unauthorised release of such information.

The parties will agree how access will be provided and who is responsible for provision of any necessary equipment, including terminals and connecting network.

Access to resources will include information necessary to assess the general availability of services in particular locations or areas, such as geographical details of the reach of local loop coverage and geographic details of network coverage, as well as technical details of deployed networks necessary for the potential Using Operator to evaluate use of the available services.

### **Quality of Service parameters applicable**

(Details to be agreed between the parties)

### **Charging**

(Details to be agreed between the parties)

## 7 Tariffs

Tariffs for the Services offered under the terms of the MAO shall be set in accordance with the following principle:

<b>Service</b>	<b>Charging structure</b>	<b>Charging level</b>
All Access Services	<ul style="list-style-type: none"><li>• Event based charge plus Monthly charge</li></ul>	<ul style="list-style-type: none"><li>• Priced by negotiation, but cost based.</li></ul>