



**ETHIO TELECOM**

**REFERENCE INTERCONNECTION OFFER (RIO)**

**November 2025**

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## 1. Introduction

Ethio telecom S.C is established by regulation number 197/2010 as amended by regulation number 480/2013 to provide telecom service in Ethiopia. The company also secured a telecom operating license from communication authority in May 2022 by which the company is granted the right to continue operating, maintaining its telecommunications network and provisioning of telecommunication services throughout Ethiopia under communication service proclamation number 1148/2019.

Ethio-telecom, according to the telecommunication interconnection directive number 791/2021 Article 16, is obliged to prepare and file RIO with the authority in 30 working days after being directed by the authority to do so.

This RIO (standard interconnection agreement) sets out the terms and conditions upon which ethio-telecom will supply interconnection related services to the Interconnection Seeker, as well as the acceptance procedures by which the Interconnection Seeker accepts the terms of this RIO.

This RIO aims to provide and facilitate new entrants with sufficient information about ethio telecom's network to assist it in its decision-making processes, and to provide a baseline for negotiating an interconnection agreement on the following matters:

- Interconnection Provisioning Procedures
- Network and Transmission Requirements
- Technical Service Commitments and Fault Repairs
- Technical Specifications and Standards
- Network Management, Maintenance & Measurement
- Network Integrity, Safety and Protection
- Commercial agreements, Charging Principles, Billing and Settlement
- Penalty and compensation

## **2. Commencement and Duration**

- 2.1. This Reference Interconnection Offer (RIO) is updated in response to ECA's request (letter reference ECA/431/2025, dated August 27, 2025). It will take effect upon ECA approval, in accordance with Telecommunications Interconnection Directive No. 791/2021.
- 2.2. Provider reserves the right to review and to revise this Reference Interconnection Offer on a regular basis but in any event, not more frequently than quarterly per annum. Further, Provider shall review and revise this Reference Interconnection Offer when required to do so by the Authority acting in exercise of the powers conferred on it by the Law.
- 2.3. Any revision of the terms of this Reference Interconnection Offer shall be subject to the approval of the Authority. Once approved by the Authority, the Revised Offer shall replace or amend this Reference Interconnection Offer.

## **3. Definitions and Interpretation**

Any interconnection agreement that wishes to take the form of this interconnection provider RIO must take into account the following meanings:

**“Interconnection provider”** means a Telecommunications operator that provides Interconnection services to another Telecommunications operator.

**“Interconnection Seeker”** means a Telecommunications operator that is requesting interconnection with another Telecommunications operator.

**“Authority”** means Ethiopian Communication Authority Established under the communication Service Proclamation NO.1148/2019.

**“Billing Dispute”** means a dispute arising from the invoices and billing processes for the Interconnection Service provided.

**“Billing Information”** means information in respect of national interconnect services during a particular Billing Period, comprising details of the total duration in actual elapsed minutes/SMS counts and seconds of all Calls contemplated in this Agreement.

**“Billing Period”** means the calendar monthly periods for billing under this Agreement.

**“Interconnection”** means the physical, technical and logical linking of the Telecommunications Networks of different Telecommunications Operators, to allow users of one operator to communicate with users from another, or to access services provided by another operator, regardless of the network to which they are connected to.

**“Interconnection agreement”** means an agreement that is agreed or determined in accordance with the provisions of this RIO and is in accordance with the Act.

**“Interconnection change”** means a change required to an existing Interconnection Service or a new Interconnection Service.

**“Planned outage”** means an expected change to the technical implementation, configuration or equipment and location or capacity of the interconnection.

**“Unplanned outage”** means an unexpected fault or failure of the technical implementation, configuration or equipment of the interconnection.

**“Call”** means a connection through a Telecommunications Network, the object of which is the carriage and successful delivery of voice Telecommunications.

**“Proclamation”** means Communications service proclamation number 1148/2019.

**“Directive”** means the Telecommunications Interconnection Directive No. 791/2021 and any subsequent amendment thereof.

**“Dispute Resolution Process”** means the process agreed as part of the Interconnection Agreement and contained in Article 12.1 of the RIO.

**“Emergency Services”** means the authorities provided to handle a crime, fire, medical emergency or natural disaster.

**“Interconnection link”** means the access Link between “Interconnection Provider” and the “Interconnection Seeker” over which Telecommunications shall be conveyed to the Provider’s Telecommunications Network and handed over at a Point of Interconnection.

**“Interconnection Change Request”** means a request by a party to the Interconnection Agreement for and Interconnection Change.

**“Joint operational Committee”** means the operational committee established pursuant to Article 6. of the Interconnection Agreement.

**“Point of Interconnection (POI)”** means a mutually agreed point in a Telecommunications Network where the networks of two or more Telecommunications Operators are interconnected.

**“Fault”** means a condition that causes a Network to operate other than intended or to cease operating altogether.

**“GSM Recommendation”** Means the recommendation publicized from time to time by ETSI in relation to GSM service.

**“ITU-T”** means the International Telecommunications Union/Telecommunication Section (ITU-T) and its predecessor the CCITT.

**“Route diversity”** means the communications routing between two points over more than one geographic or physical path with no common points.

“**Working days**” means business working days only and shall not include Saturday, Sunday and any day that has been declared to be a public holiday by the Federal Democratic Republic of Ethiopia.

#### **4. Scope**

This RIO is intended to apply only to:

- A. the interconnection of the Networks of the parties;
- B. meet all reasonable requests for interconnection at any technical feasible point.
- C. making available and provision of Interconnection Services by each party to the other party;
- D. incorporate reasonable terms and conditions for interconnection, including technical standards and specifications;
- E. Management of interconnection payment of the charges in relation to the provision of those Interconnection Services; and
- F. the resolution of certain disagreements or disputes in relation to any matter arising under or in relation to the Interconnection Agreement.

#### **5. Interconnection Services**

- **Wholesale Fixed Call Termination Service:** Refers to a call conveyance service provided by a Telecommunications Operator that offers fixed voice service (the “Terminating Operator”) to its subscribers. The service is provided to another Telecommunications Operator but may also include another operator located outside of Ethiopia. The Terminating Operator’s network is handed over a call that originated on another operator’s network, including calls originating outside of Ethiopia. The Terminating Operator conveys that call over its network and terminates it on the called party, which is a subscriber of the Terminating Operator.

- **Wholesale Mobile Call Termination Service:** Refers to a call conveyance service provided by a Telecommunications Operator that offers mobile voice service (the “Terminating Operator”) to its subscribers. The service is provided to another Telecommunications Operator but may include another operator located outside of Ethiopia. The Terminating Operator’s network is handed over a call that originated on another operator’s network, including calls originating outside of Ethiopia. The Terminating Operator conveys that call over its network and terminates it on the called party, which is a subscriber of the Terminating Operator.
- **Short Messaging Service (SMS) Termination Service:** Is a message conveyance service provided by a Telecommunications Operator. The service is provided to another Telecommunications Operator but may also include another operator located outside of Ethiopia. The Terminating Operator’s network is handed over a SMS that originated on another operator’s network. The Terminating Operator conveys that SMS over its network and terminates it on the receiving party, which is a subscriber of the Terminating Operator.
- **Wholesale Toll Free Interconnection Service:** Refers to a Call conveyance and termination service provided by a Telecommunications Operator (the “Terminating Operator”) to its subscribers. The Terminating Operator conveys a Call, which is to a number that forms part of the Terminating Operator’s number ranges as allocated by the Authority for toll free services, and handed over by Seeker at a Point of Interconnection for delivery to a Customer of the Terminating Operator’s Telecommunications Network.
- **Emergency services:** Refers to a Call conveyance and termination service provided by a Telecommunications Operator that is connected to an emergency services organization (the “Terminating Operator”). The Terminating Operator conveys an Emergency Services Interconnection Call handed over by Seeker at a Point of Interconnection for delivery to the emergency services organization.

## 6. Technical specification needed & Standard used

This section describes the technical aspects of interconnection, covering the physical form of interconnection and network aspects including switching, routing, transport, signaling, interfaces, and network interoperability

### 6.1. The Physical Form of Interconnection

- a. The Interconnection seeker should specify the physical form of interconnection which is the linking and interworking of the telecommunications networks/systems of Interconnection Providers which permit users to communicate with one another.
- b. The Interconnection seeker should specify the Point of Interconnection (POI)
- c. The Interconnection seeker should specify main forms of physical interconnection where the Point of Interconnection may be located:

### 6.2. Switching Network Interconnection

- a. The Interconnection seeker should Address the approach for meeting the network interconnection capacity requirements for interconnection traffic;
- b. Both parties Identify the rules governing the level at which switching point the interconnection will take place, e.g. at International Gateway, Service Node or, in the case of IP interconnection, at which transport level interconnection will take place;

### 6.3. Network Interconnection Links and Routing

- a. The Interconnection seeker should specify the Network Interconnection Links connect the networks of Interconnection Providers and facilitate the delivery of traffic between them. These links are between Points of Interconnection.

- b. The Interconnection seeker should specify initial interconnection, a configuration with two separate POIs in separate buildings and over physically diverse routes shall be regarded as sufficient.
- c. The Interconnection seeker should specify Routing considerations for Network Interconnection Links shall include:
  - Route capacity.
  - Route dimensioning.
  - Route diversity.
  - Network change

#### **6.3.1. Route Capacity**

- a. The parties shall agree on the rules for minimum and maximum capacities and increments in which capacity may be provisioned.
- b. For expansion of the route capacity, the number of POIs must be based on reasonable engineering principles including a justified need to provide network resilience.
- c. Interconnection Provider may require interconnection seeker to interconnect at more than one location or to a particular location taking into account the any relevant requirements must be based on network standard principles and a justified need to provide network resilience

#### **6.3.2. Route Dimensioning**

- a. Network Interconnection Links shall be provisioned according to international standards (e.g., maximum Erlang level) ...
- b. A utilization factor shall be established in order to determine when to upgrade links.
- c. For a “fully-provisioned” link a maximum utilization factor of 80% shall be used. Should the measured utilization of such a link regularly exceed the maximum utilization factor, then either traffic should be re-routed away from that link or the capacity of the link increased.

### **6.3.3. Route Diversity**

- a. For interconnection between networks, route diversity is required in order to enhance reliability.
- b. Interconnection service flexibility shall be supported.

### **6.3.4. Network Changes**

- a. The parties shall give each other 40 working days prior notice of changes to network configuration and facilities that may have significant impact on the engineering of the other's network, where procurement is required and, in all other circumstances, twenty (20) working days.

## **6.4. Signaling Network Interconnection**

- a. Interconnection seekers must provide signaling interconnection and ensure control information is delivered for processing of session management.
- b. Interconnection seeker shall use ITU Signaling System Number 7 (SS7) for circuit switched technologies. For IP interconnection, a signaling standard that conforms to international Industry standards may be agreed upon between the Service
- c. Interconnection seeker shall specify signaling interconnection options and the associated configurations.

## **6.5. Signaling Interface & Protocols**

- 6.5.1.** Signaling Interface & Protocols will be agreed between the parties' subject to the most efficient arrangements being agreed.

### **6.5.2. Synchronization**

Interconnection seeker shall agree on the technical standards and operational procedures for synchronization.

## **6.6. Interface Standards and Interoperability**

Interconnection seeker shall use network interfaces based on internationally accepted technical standards on:

- Network operability
- Numbers and Addressing Elements
- Quality of Service

## 7. Tariffs for National Interconnect Service

7.1. The charges payable for the National Interconnection Services shall be those prescribed and approved under Determination No. 2 of 2024, issued by the Ethiopian Communications Authority ("ECA") in April 2024.

## 8. Management of Interconnection

### 8.1. Joint Technical and Operational Committee

- a. Interconnected Interconnection Providers shall establish a joint technical and operational committee. The joint technical and operational committee shall facilitate discussion to reach mutually acceptable agreements on technical, operational, planning, billing and other service aspects of interconnection.
- b. The composition of the joint technical and operational committee shall be agreed upon by the Interconnection Providers and could be reconstituted as and when required.
- c. The joint technical and operational committee shall meet at regular intervals with an agenda agreed in advance and may cover one or more of the following areas:
  - New Points of Interconnection;
  - Analysis of traffic levels;
  - Service quality;
  - Capacity requirements;
  - Fault analysis;
  - Billing processes;
  - Network and/or service changes;
  - Change of technical interconnection standards;

- Any other technical and operational issues associated with interconnection

### **8.2. Provision of information between Licensees**

On application by an Interconnection Seeker the National Interconnection Provider shall supply the following Network information:

- a. Service configuration
- b. Technical characteristics
- c. Network Interconnection paths and routing
- d. Switching Network Interconnection
- e. Signaling Network Interconnection
- f. Interface standards
- g. Synchronization
- h. Safety standards

### **8.3. Planned Changes to Networks (Information on Network Alterations)**

All Interconnection Providers shall provide reasonable notice to all other Interconnection Providers about any planned network change or upgrade which may be expected to affect the operation of interconnection arrangements between the Interconnection Providers. Sufficient time shall be allowed for Interconnection Providers to make necessary changes or adjustments to their systems and networks to ensure continuity of service. The minimum period of advance notification shall be 40 days, or such other period agreed between parties, save emergency circumstance which needs immediate action.

## **9. Technical Aspects**

### **9.1. Interconnection of Public Switches**

- a. General Rules for Interconnect Links between Public Switches: Interconnection covered under the terms of the Interconnection Agreement

is only available using signaling known as ITU-T Signaling System at a specified capacity for each Interconnection Link subject to the terms and conditions in the Interconnection Agreement.

- b. Number of Interconnect Links: Details of the number of Interconnection Links shall be attached to the Interconnection Agreement and modified from time to time to reflect changes.
- c. Transmission Technologies: DWDM and other advanced transmission technologies can be used for Interconnection.

#### **9.2. Numbering:**

The Interconnection Seeker and the Interconnection Provider's Number Ranges shall be detailed in the Interconnection high level design document which should be amended when changes are made to these Number Ranges.

#### **9.3. Interconnection of Signaling Networks for Switch connection:**

The Interconnection Provider shall provide signaling circuits as part of the Interconnect Link between its Switch and each of the POIs and each Switch in the Interconnection Seeker's Network.

#### **9.4. Interface Standards and Technical Requirements:**

The Interface Standards and Technical requirements of the Interconnection Provider Network shall be included as an annex to the Interconnection Agreement

#### **9.5. Emergency Services:**

The parties undertake to ensure that except for calls to the Emergency Services, the Calling Line Identification Restriction (CLIR) marking of Calls is respected at all times and that the numbers marked with CLIR shall not be presented to the

called end-user or a third party where this is required by an End User or by the Act or other applicable legislation.

#### **9.6. Quality of Service:**

Interconnecting parties shall ensure that interconnect facilities delivered at each point of interconnection (POI) conform to the applicable Quality of Service (Q OS) standards set by the Authority in this document.

### **10. Commercial Aspects**

The Interconnection Agreement shall contain a detailed procedure in relation to charging and payment for Interconnection Services provided under the Interconnection Agreement.

#### **10.1. Charging Principles**

The charges payable by the Interconnection Provider to the Interconnection Seeker and by the Interconnection Seeker to the Interconnection Provider for their respective services provided under the Interconnection Agreement shall be as set out in the Interconnection Agreement.

#### **10.2. Taxes**

- a. All charges exclude VAT and other applicable taxes. Tax withholding and excise tax will be applied as required by Ethiopian tax laws.
  
- b. Each party shall provide the other party in accordance with the applicable VAT legislation in Ethiopia by no later than the last day of a calendar month, a tax invoice for regularly billed charges and any one-off charges.

#### **10.3. Due Date:**

Subject to any bona fide claims of Manifest Error, all amounts invoiced by the Invoicing Party to the Paying Party under the Interconnection Agreement shall be due and payable on or before the Due Date of the relevant invoice.

#### **10.4. Payment**

- a. All charges and other amounts payable by the Paying Party under the Interconnection Agreement shall be paid by the Paying Party to the Invoicing Party bank account / or electronic funds transfers, all payments except to the extent required by the proclamation are free of any deductions, set off or withholding on account of any amount.
- b. The parties shall agree that, in the event of any dispute about the validity or enforceability of the Interconnection Agreement or of its implementation (in whole or in part), each party shall continue to perform its obligations in accordance with the terms of the Interconnection Agreement until a court of competent jurisdiction (or the arbitrator of an arbitration or the ECA) lawfully determines that the Interconnection Agreement or its implementation (in whole or in part), is invalid or unenforceable.

### **11. Interconnection Processes & Procedure**

#### **11.1. Initial Interconnection Access Process**

- a. The Interconnection Seeker shall provide a detailed statement of its technical requirements for Interconnection Services in respect of the Interconnection Agreement with official access request letter.
- b. Interconnection Provider shall respond within 10 working days to a request for interconnection services indicating acceptance or rejection. (Schedule1: INTERCONNECT REQUEST AND RESPONSE FORM)
- c. Where the request is not accepted, a written response, indicating the reasons as well as an appropriate alternative proposal, shall be provided to the Interconnection Seeker making the request and a copy of the response provided to the Authority.

#### **11.2. Interconnect Provisioning Procedure**

- a. Interconnection agreements shall be negotiated in good faith between the Telecommunications Operators involved, and the Interconnecting

Operators shall use reasonable endeavors to resolve all disputes relating to interconnection.

- b. Network Planning: The Interconnection Provider and Interconnection Seeker shall specify the two-year network planning in each other's RIO or separately during negotiation period.
- c. Traffic Forecasts: Interconnection Seeker requesting or using interconnection services shall provide a rolling two-year forecast of traffic over each interconnection link. The forecast shall be for mobile and fixed voice, SMS , and only related to the traffic. The rolling forecast shall be updated every three months.
- d. Operational Testing: Operational and maintenance testing shall be undertaken with minimal impact on traffic flow. The scheduling shall be mutually agreed and testing shall preferably take place at the lowest traffic period of the day.

### **11.3. Billing Processes and procedure**

11.3.1. Interconnection Providers offering interconnection services shall have the capability to measure, record and bill the charges for these services.

11.3.2. The traffic reconciliation operation can be undertaken in good faith and interconnecting parties shall work together to reach a satisfactory resolution of billing issues.

## **12. Billing and Payment**

12.1. The Seeker shall pay to the Provider the Interconnection Fees incurred with effect from the start-date of the billing cycle.

12.2. Within ten (10) Working Days of the end of each Billing Period, the Provider will invoice the Seeker for all Interconnection Fees during that Billing Period and any VAT payable in connection with those Interconnection Fees. Invoices may not be issued prior to the start-date of the billing cycle.

- 12.3. Notwithstanding any provision to the contrary in this Agreement, the Provider shall be precluded from submitting any invoice to the Seeker later than ninety (90) Working Days after the end of the Billing Period to which such invoice relates.
- 12.4. All Interconnection Fees payable shall be paid on a “net-off” basis, so that the Party that owes the higher Interconnection Fees after invoices have been received (on or prior to the tenth (10<sup>th</sup>) Working Day after the end of the Billing Period) shall pay the net amount to the other Party:
- 12.5. within thirty (30) Working Days of receipt of the other Party’s tax invoice; and into the other Party’s or other nominated bank account by way of direct deposits or electronic funds transfers.
- 12.6. The parties shall keep records showing clearly the Billing Information (CDRs) relating to the provision of the Interconnection Services by the Provider and all charges due pursuant to the Agreement for a period of six months after the end of the Billing Period to which such Billing Information relates. If the Parties are required by law to retain Billing Information for a longer period than six months, then that longer period shall apply. If the Seeker gives a notice under clause 12.8, the provider shall keep a record of Billing Information until a final judgment is given or the dispute is resolved.
- 12.7. The billing party shall keep the recording of billing data (Invoices) for a period of at least ten years after the issuance of invoice according to clause 12.6. The data shall be in easily retrievable format if required for recalculation of any due amounts.
- 12.8. The Seeker may consider, in good faith, that there is a discrepancy between the amount charged in an invoice (including the amount of any Credits) and the amount properly due under this Agreement (“Discrepancy”). In these

circumstances, the Seeker shall notify the Provider within ninety (90) Working Days of the date of receipt of the invoice, giving sufficient detail for the Provider to investigate the dispute.

12.9. Notwithstanding the provisions of clause 12.8, a dispute shall only be raised if the aggregate amount in dispute exceeds the greater of (a) fifty thousand Ethiopian Birr (50,000 ETB) or (b) one per cent (1%) of the invoiced amount. Further to aid in the interpretation of this clause, the following illustrations have been added:

A : If the invoice amount is greater than 1% difference and above 50,000 ETB, it will be considered a dispute.

B : If the invoice amount is greater than 1% difference but less than 50,000 ETB, it will not be disputed.

C : If the invoice amount is less than 1% difference but above 50,000 ETB, it will not be disputed.

D : If the invoice amount is less than 1% difference and below 50,000 ETB, it will not be disputed.

12.10. The Provider shall allow a duly authorized representative of the Seeker to have access to the records referred to in clause 12.6 during business hours within ten (10) Working Days of receipt of the Seeker's notice under clause 12.8 to enable it to determine whether there is a Discrepancy.

12.11. If the Seeker gives notice of a Discrepancy under clause 12.8 :

12.11.1. Where the notice is given before the due date of the invoice, the Seeker shall pay only the undisputed amount of the invoice in accordance

with clause 12 (and the “net off” in clause 12.4 in respect of what the Seeker owes shall only apply to that undisputed amount); and

12.11.2. the matter shall be referred for determination under the provisions of clause 12.11.512.12 In this case the Seeker will not be required to pay the disputed amount until the matter is determined.

12.11.3. Should the disputed amount be decided in favor of the Provider, the Seeker shall pay the amount by the due date for the next invoice after determination of the dispute. Should the disputed amount be decided in favor of the Seeker, the Provider shall pay the amount by the due date for the next invoice after determination of the dispute (unless that amount had already been withheld by Seeker).

12.11.4. If the paying party under clause 12.11.3 fails to pay the amount within the required time period, late payment interest shall apply under clause 12.13

12.11.5. The Seeker waives the right to dispute any invoices not disputed within the ninety (90) Working Days period.

12.12. In the event of any Discrepancy, the Parties shall use their reasonable endeavors to resolve the dispute within twenty (20) Working Days, or such longer period as the Parties may agree in writing. If no resolution is reached in that time period, the Parties shall refer the matter to the Authority for determination and the Authority will govern the case as per the telecommunication dispute resolution directive No. 796/2021.

12.13. If either party fails to pay any amount due by it in terms of this Agreement within the specified period of payment, the defaulting party shall pay late payment interest at the rate of 13% (thirteen percent) per annum (0.035%

per day), calculated from the date that payment was due to the date of actual payment in full.

12.14. Notwithstanding any dispute between the Parties as to any payment, the Parties shall, throughout the term of this Agreement, remain obliged to observe and perform their obligations in terms of this Agreement.

12.15. All invoices shall be set out and paid in Ethiopian Birr.

### **13. Operational Procedure**

#### **13.1. Dispute Resolution**

13.1.1. In the event of any Dispute arising between the Parties, prior to referring the dispute to the authority, each Party shall try to solve the dispute according to sub-article 13.1.2 and 13.1.3 of this article.

13.1.2. In the event of a Dispute arising either Party shall notify the other, in the first instance through negotiation between the parties through the normal contacts, hereinafter referred to as Level 1.

13.1.3. In the event of the Parties failing to resolve the dispute at Level 1 within thirty (30) working days, either Party may upon service of notice to the other escalate the dispute to the determination by the Authority. The Party serving the notice shall include with such notice all relevant details including the nature and extent of the Dispute.

13.1.4. The time limits specified at paragraphs 13.1.2 above may be extended by mutual agreement between the Parties.

13.1.5. Nothing herein contained shall prevent a Party from seeking (including obtaining or implementing) interlocutory or other immediate or equivalent relief.

13.1.6. Disputes relative to fees and payment of charges under this Agreement shall be covered by the provisions of Clause 12.

### 13.2. **Multilateral Working Group**

All concerned Interconnection Providers shall participate in such a multilateral working group. It shall establish terms and procedures. This multilateral working group, shall hold periodic meetings at least quarterly. The multilateral working group will establish sub-groups which may consist of regulatory, operational or technical staff as required to address specific issues as they arise. Such working groups shall aim at establishing industry solutions, standards and procedures, including on issues such as:

- Introduction of new services and changes
- Operations and maintenance processes;
- Management of interconnection;
- Technical standards and interfaces;

## Schedule 1: Interconnection Request and Response Form

### A. Interconnection Request Form

#### Request for Interconnection (to be filled by the Interconnection Seeker)

##### 1. Details of Interconnection Seeker:

- a. Name of the Licensee:
- b. License Number and Date of Issue/Renewal:
- c. Type(S) of Telecommunication Services provided by the Interconnection Seeker:
- d. Contact Person:
  - i. Name:
  - ii. Telephone No.:
  - iii. Email:

##### 2. Details of Interconnection request:

S/N	Items	Description
1	Reference Number of the Request	
2	Date of Request	
3	Date of interconnection delivery	
4	Types of Service (Voice/SMS/Both)	
5	Purpose of Request	
6	No. of POI	
7	Capacity Required	
8	Detail Requirements	May use additional sheet
9	12 months traffic forecast	May use additional sheet
10	Any other Information	May use additional sheet

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Authorized Signature of the Interconnection Seeker

## B. Response to Interconnection request form

### Response to Interconnection request (to be filled by the Interconnection Provider)

#### 1. Details of Interconnection Seeker:

- a. Name of the Licensee:
- b. License Number and Date of Issue/Renewal:
- c. Type(S) of Telecommunication Services provided by the Interconnection Seeker:
- d. Contact Person:
  - i. Name:
  - ii. Telephone No.:
  - iii. Email:

#### 2. Details of Interconnection Provider:

- a. Name of the Licensee:
- b. License Number and Date of Issue/Renewal:
- c. Type(S) of Telecommunication Services provided by the Interconnection Provider:
- d. Contact Person:
  - i. Name:
  - ii. Telephone No.:
  - iii. Email:

#### 3. Details of Approval by Interconnection provider:

S/N	Items	Description
1	Reference Number of the Request	
2	Date of Request	
3	Date of interconnection delivery	
4	Types of Service (Voice/SMS/Both)	
5	Purpose of Request	
6	No. of POI	
7	Capacity Required	
8	Detail Requirements	May use additional sheet
9	12 months traffic forecast	May use additional sheet
10	Duration of Interconnection	
11	Date of Interconnection Request received	
12	Date NDA forwarded	
13	Date data exchange commenced	
14	Date Negotiation commenced	
15	Any other Information	May use additional sheet

#### 4. Details of rejection by Interconnection provider:

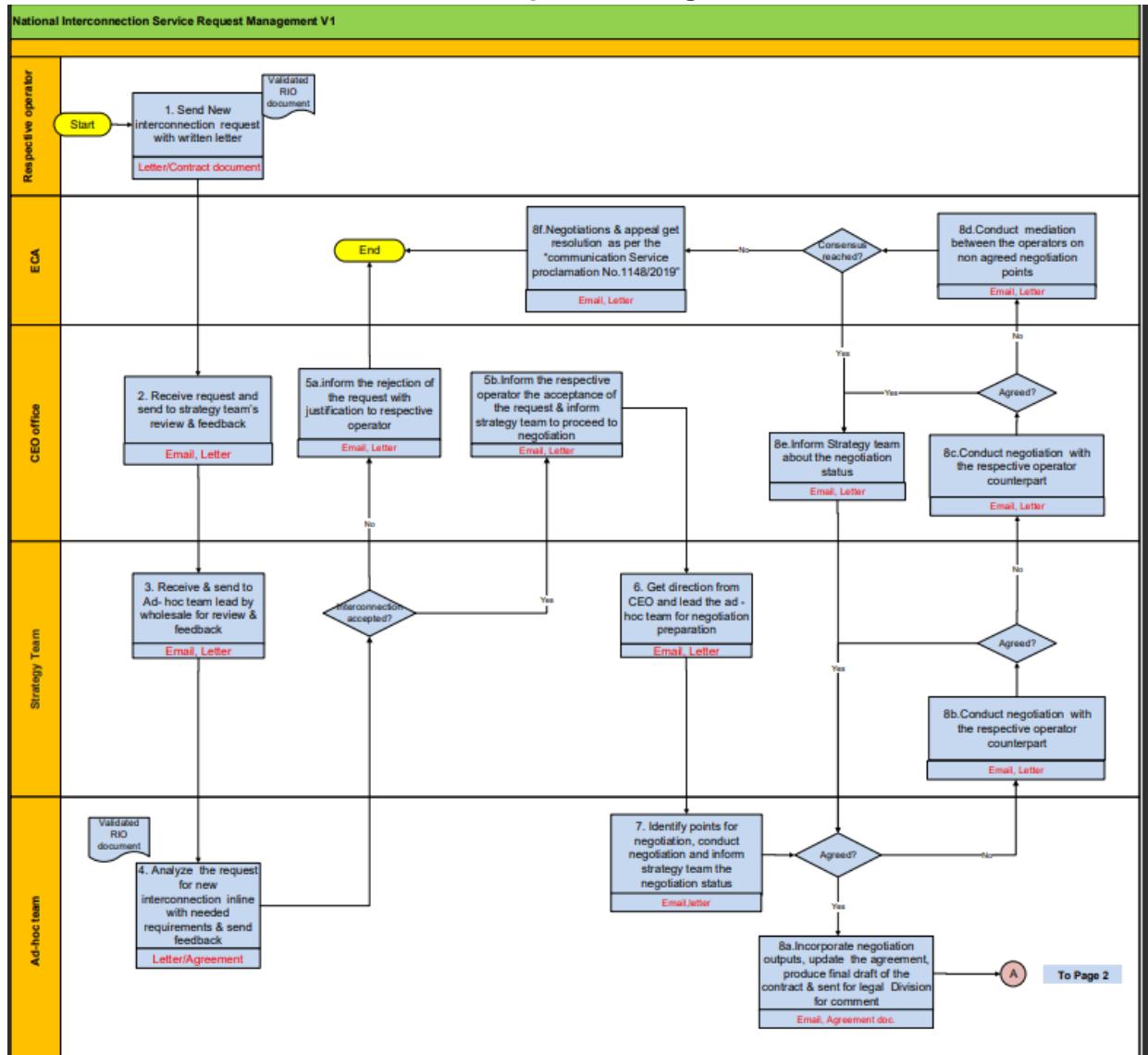
S/N	Item	Description
1	Reference Number of the Request	
2	Reference number of rejection	

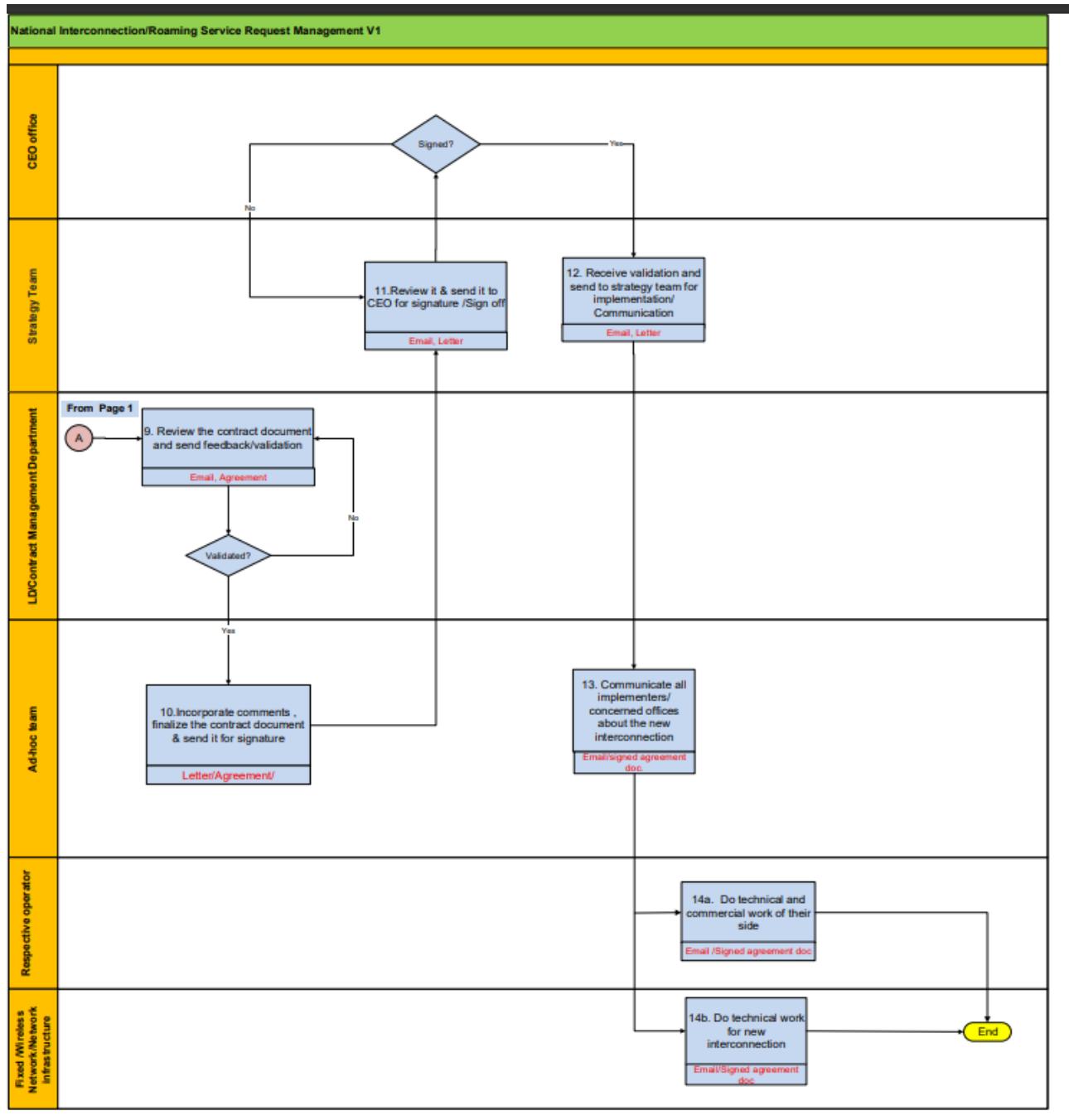
3	Type of service	
4	Purpose of service	
5	Reasons of Rejection	
6	Any other information	

---

Authorized Signature of the Interconnection Provider

## Schedule 2: Interconnection Service Request Management





### **Schedule 3: Interconnection Bill Procedure**

The Interconnection Billing Procedure outlines the end-to-end procedure for processing interconnection traffic, from data generation to final settlement.

#### **Phase 1: CDR Generation & Initial Billing**

1. CDR Generation: The Fixed Access & Core Network P&E / Wireless Core Network P&E Section generates Call Detail Records (CDRs) from the soft switch bill server and forwards them to the ISD-Convergent Billing operations section.
  
2. Rating & Billing: ISD-Convergent Billing Operations checks and rates the CDRs. Rates are applied as per the local/agreed tariff from the MD/Interconnect Voice & National Roaming department. The section then generates the initial interconnect traffic report.

#### **Phase 2 : Reconciliation & Dispute Management**

##### **3. Fraud & Reconciliation Analysis:**

- The RA & Fraud Management department receives the initial interconnect report.
- They reconcile it against their own data and partner-provided traffic reports.
- Upon completion, they notify the Billing & Settlement Section of the analysis results, copying the Billing Operations team.

##### **4. Dispute Resolution & Confirmation:**

- The Billing & Settlement Section receives the reconciled report and the partner's report.
- They compare the reconciled incoming and outgoing traffic against the partner's report to identify any discrepancies.
- If disputes are identified, the section: Formally requests confirmation from the interconnect partner by sharing the analysis.
- Receives the partner's confirmation and adjusts the statement accordingly for accepted disputed CDRs.

#### **Phase 4 : Invoicing & Settlement**

##### **5. Invoicing:**

- The finalized and reconciled traffic report is sent to the Accounts Receivable (A/R) and Accounts Payable (A/P) sections to generate the official invoices.
- The standard predefined process for Interconnection invoicing is then followed.

6. Invoice Extraction:

- The Billing & Settlement / Billing Group extracts the net-off statements and adjusted invoices from the Oracle Receivables system.
- These documents are sent to the Settlement Group and copied to the interconnect partner for information.

7. Settlement Processing:

- The Settlement Group receives the extracted documents.
- They prepare a payment proposal and forward it to A/P (for payments due) or A/R (for collections).
- The group is responsible for chasing and following up on due payments and updating the accounts for each interconnect partner.

8. Payment Posting & Reporting:

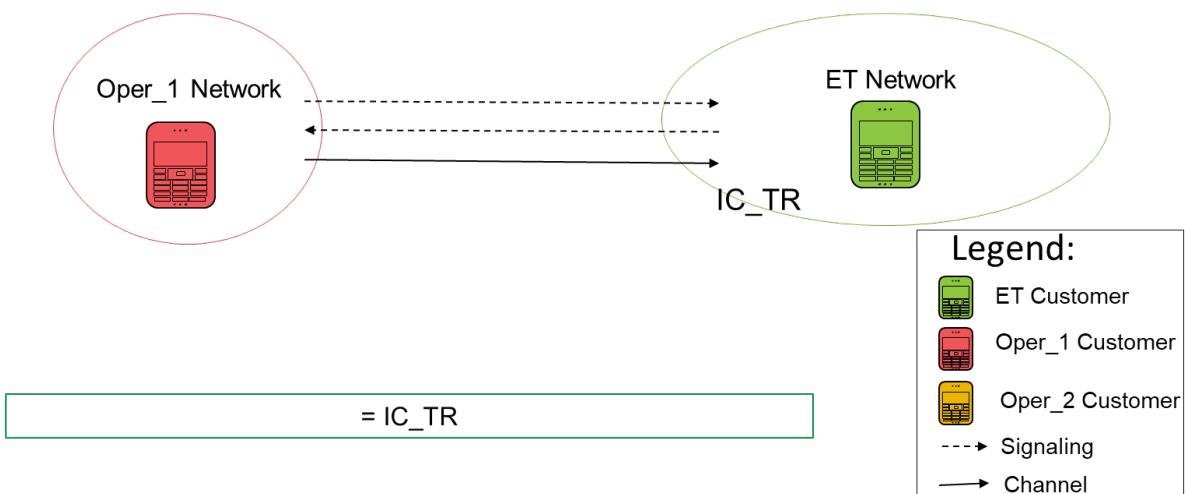
- Upon receipt of bank advice, the Settlement Group updates the customer profile with the receipt information and forwards the advice to A/R.
- The predefined process for Netting Receipt & Settlement is followed.
- Finally, the group extracts the aging report and updates the master settlement report.

9. Visual Workflow Summary:

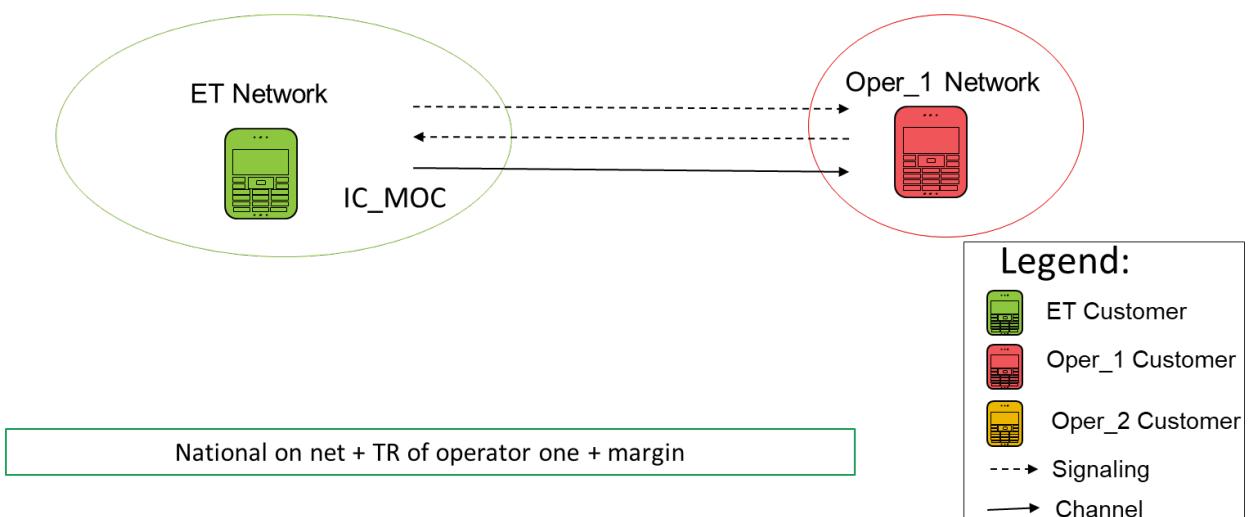
**CDR Generation → Rating & Billing → Reconciliation & Dispute Resolution  
→ Invoicing → Settlement & Payment Follow-up → Reporting**

**Schedule 4: Interconnection - Scenarios**

**Appendix 4A:** When one Operator\_1 Customer call to ET Customer (ET Network)



**Appendix 4B:** When one Operator\_1 Customer call to ET Customer (ET Network)



## Schedule 5 : Summary of Standards and Specifications

I. Parameter standards and specifications shall be based on internationally accepted standards and best practices, in accordance with the following parameters.

Parameters	Standards and Specifications
Switching Interface	ITU-T Recommendations (e.g., Q.700–Q.799 Series for Signaling System No. 7)
Transmission Interface – IP / DWDM	IP / Ethernet / DWDM (as per ITU-T G.694.x, G.709, IEEE 802.3 standards)
Signaling	SS7 / SIGTRAN / BICC / SIP (as per ITU-T Q.7xx, IETF RFC 3261, and related standards)
Synchronization	NTP / PTP (as per IETF RFC 5905 and IEEE 1588 standards)
Broadband Interface	IP-based (as per IETF and IEEE 802 series standards)
Quality of Service (QoS)	ITU-T Y.1541 / IETF standards
Security and Encryption	TLS / IPsec / ITU-T X.805 standards
Network Management Interface	SNMP / NetConf / ITU-T M.3000 Series

II. Point of Interconnection (POI)

The following sections outline specifications of the POI, which form the basis for implementation, testing, and operational maintenance between the interconnecting parties.

1. POI Name:

ET-STE GMSC

2. Location / Address:

Ethio telecom MDC, Bole and Kerkos, Addis Ababa, Ethiopia.

3. Type of POI:

Gateway      Mobile      Switching      Centre      (GMSC)      –      Level      POI

This POI operates at the GMSC level and facilitates the interconnection of national mobile and fixed networks for call routing, signaling, and traffic exchange between operators.

4. Interface Details:

The interconnection interfaces shall comply with the following signaling and protocol standards:

SS7 (Signaling System No.7) as per ITU-T Q.7xx series

SIGTRAN for IP-based signaling transport

BICC (Bearer Independent Call Control) as per ITU-T Q.1901 series

SIP (Session Initiation Protocol) in accordance with IETF RFC 3261 and related standards

These interfaces ensure interoperability and quality signaling between Ethio telecom and the interconnected operator.

5. Routing & Traffic Details:

The POI shall carry all mobile-originated and mobile-terminated local and national voice traffic.

It also supports inter-operator traffic exchange between Ethio telecom and other licensed national operators.

Routing shall follow mutually agreed numbering, signaling, and routing plans in compliance with national regulatory frameworks.

**6. Synchronization Source:**

Primary Clock Source: Provided by Ethio telecom.

Secondary Clock Source: Available at the other national operator to ensure redundancy and synchronization integrity.

All synchronization equipment shall conform to ITU-T G.811/G.812 recommendations.

**7. Power & Space Arrangements:**

Ethio telecom shall provide:

Adequate rack space within its interconnection facility.

-48V DC power supply with appropriate grounding and surge protection.

Cooling and environmental control as per Reference Interconnect Offer (RIO) standards.

The setup shall adhere to both operators' safety and equipment installation guidelines.

**8. Testing & Commissioning:**

Prior to service activation, joint testing will be conducted to verify:

Signaling and bearer path connectivity

Call setup, routing, and quality performance

Synchronization and power stability

Acceptance Test Results shall be documented, jointly signed, and retained by both operators as evidence of successful interconnection commissioning.

**Schedule 6 : Interconnection Framework Agreements**

**National Interconnection Framework Agreement**

**Between**

**Ethio Telecom**

**And**

**The partner**

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This agreement is made on .....

Between:

Ethio Telecom S.C having its principal place of business located at Churchill Road, Lideta Sub-city, Woreda 10, Addis Ababa, Ethiopia (hereinafter referred to as "**Ethio Telecom**") and

The Partner having its principal place of business at \_\_\_\_\_, , Addis Ababa, Ethiopia (hereinafter referred to as "**The Partner**")

WHEREAS

- a. The partner is in possession of a valid License, to provide telecommunications services pursuant to the provisions of the Law.
- b. Ethio Telecom is in possession of a valid License to provide telecommunication services pursuant to the provisions of the Law.
- c. Each Party, as the Interconnection Provider, has agreed to provide interconnection to its networks to the other Party, as the Interconnection Seeker, in accordance with the Ethiopian Communications Authority's Telecommunications Interconnection Directive, as amended or superseded from time to time and to the supply of services and facilities on the terms and conditions as provided for in this Agreement.
- d. Subject to the Telecommunications Interconnection Directive, the Parties agree that the Agreement shall govern the terms and conditions of interconnection, through which the Interconnection Provider shall provide the Interconnection Services to the Interconnection Seeker.

In consideration of the mutual covenant and obligations contained in this Agreement, the Parties hereby agree as follows:

## 1. Definitions and Interpretation

- 1.1. In this Agreement, unless the context otherwise requires, words and phrases used shall have the meaning and application given to them in the Communications Service Proclamation No. 1148/2019 and Telecommunications Interconnection Directive No. 791/2021.
- 1.2. In addition, in this Agreement where the context admits:

**“Billing Period”** means the calendar monthly periods for billing under this Agreement.

**“Call”** means a connection through a Telecommunications Network, the object of which is the carriage and successful delivery of voice Telecommunications.

**Call detail records “ CDR ”** : means call data records which shall mean a registration of Service type, the date, time, volume, duration, etc. of any such Service type, and any other service agreed by the Parties.

**“Commercial Launch Date”** means the date that the Interconnection Services commences under this Agreement, which date shall be not later than the date specified in clause 4.1 of Schedule 2 (Network and service description).

**“Confidential Information”** means all information, whether conveyed orally or in writing, which relates to a party’s and/or its affiliates and/or any third party customer’s business and/or their product, developments trade secrets, know-how, personnel, together with all information derived from the above and all information designated as confidential, including, in the case of the Seeker, Seeker Data and all customer data, but does not include information which:

- a. if not designated in writing as “confidential”, would not reasonably be considered to be confidential;
- b. is or becomes public knowledge other than by breach of clause 14;

- c. is received from a third party who lawfully acquired or developed it and who is under no obligation of confidence in relation to its discloser; or
- d. is independently developed without the use of the other party's confidential information, provided that any information conveyed orally that is intended to be confidential information shall be confirmed by the disclosing party to the receiving party in writing within seven (7) days of disclosure in order to be regarded as Confidential Information.

**“Credits”** means service level credits specified in schedule 4 (Service Level Agreement) and any other credits, which may be applied by Seeker to reduce on an ETB by ETB basis the Interconnection Fees owed by Seeker under this Agreement.

**“Customer”** means any person who receives Telecommunications Services and pays the corresponding fees for a certain period of time by virtue of an agreement that he enters into or accepts the terms set forth by a Telecommunications Operator.

**“Directive”** means the Telecommunications Interconnection Directive No. 791/2021 and any subsequent amendment thereof.

**“Effective Date”** is defined in clause 2.

**“Emergency Services Interconnection Call”** means a Call from a subscriber in the Interconnection Seeker's network to an emergency services number, where the emergency services organization (fire, police, ambulance) is connected to the Interconnection Provider's network and not to the Interconnection Seeker's network.

**“FDRE”** Federal Democratic Republic of Ethiopia.

**“Interconnection Fees”** means the fees payable by the Parties to one another in-accordance with the terms of this Agreement for the provision of Interconnection Services.

**“Interconnection link”** means the access Link between “Interconnection Provider” and the “Interconnection Seeker” over which Telecommunications shall be conveyed to the Provider’s Telecommunications Network and handed over at a Point of Interconnection.

**“Interconnection Provider”** or **“Provider”** means Ethio Telecom where the Interconnection Service is provided to the partner and the partner where the Interconnection Service is provided to Ethio Telecom.

**“Interconnection Seeker”** or **“Seeker”** means Ethio Telecom where the partner is the provider and The partner where Ethio Telecom is the provider;

**“Interconnection Services”** means Interconnection services provided by Interconnection Provider to Interconnection Seeker for the purpose of achieving interconnection of their respective networks, as further described in clause 3.1 and as further specified in Schedules 1 (Technical Specifications) and Schedule 2 (Network and Service Description).

**“Interface Planning and Service Management Terms”** means the detailed terms and conditions relating to the interface between the Networks of the two Parties and the interconnection architecture that applies, as attached to this Agreement as an Annex and initialed by the Parties for the purposes of identification.

**“License”** means the Unified Telecommunications Service License granted by the Authority in accordance with the Communications Proclamation No. 1148/2019.

**“Point of Interconnection”** means a mutually agreed point in a Telecommunications Network where the networks of two or more

Telecommunications Operators are interconnected with those points set out in Schedule 1 (Technical Specifications) and the Interface and Service Management Terms.

**“Short Message”** or **“SMS”** means a text message sent via a short message service conforming to GSM Standard 03.40 enabling text messages of up to one hundred and sixty (160) characters to be transferred and/or originated on compatible communications devices connected to the Networks of the Parties.

**“Technical Specifications”** means the technical specifications for the Interconnection Services as set out in Schedule 1 (Technical Specifications) and as further set out in the Interface Planning and Service Management Terms.

**“Working Days”** means business working days only and shall not include Saturday, Sunday and any day that has been declared to be a public holiday by the Federal Democratic Republic of Ethiopia.

- 1.3. In this Agreement where the context permits:
  - a. Any reference to a Party includes that Party's successors and permitted assignees and includes any other name or corporate structure that that Party may adopt for any reason;
  - b. Any reference to a “person” includes any individual, company, corporation, firm partnership, joint venture, association, organization or trust (in each case, whether or not having separate legal personality) and reference to any of the same shall include a reference to the others;
  - c. any number of days is prescribed, same shall be reckoned exclusively of the first and inclusively of the last day unless the last day falls on a day which is not a Working Day, in which case the last day shall be the succeeding day which is a Working Day;
  - d. The singular includes the plural and vice versa;

- e. Reference to any statutory provisions include a reference to those provisions an amended or re-enacted or as their application is modified by other provisions from time to time (whether before or after the date of this Agreement) and any reference to a statutory provision shall include any subordinate legislation made from time to time, and include the scheduled and appendices;
- f. References to “**this Agreement**” mean the whole parts of this agreement or any amended, varied, supplemented, modified or novated from time to time, including schedules;
- g. Reference to **clauses and schedules** are references to clauses and schedules of this Agreement, and reference to paragraph are, unless otherwise stated, references to paragraphs of the schedule in which the reference appears;
- h. Any reference to “**writing**” shall include Typewriting, printing, photography, telex, facsimile and the printed out version of a communication by electronic mail and other modes of representing or reproducing words in allegable form;
- i. Use of words “**include**” or “**including**” mean as a whole or a part without limitation and the use of these words or similar words shall not limit the meaning of any words following.

1.4. The headings and sub-headings are inserted for convenience only and shall not affect construction of this Agreement.

1.5. Each of the schedules shall have effect as if set out in this Agreement, even if signed separately.

1.6. In the event of ambiguity or conflict between any of the constituent parts of this Agreement, the order of precedence in the interpretation of this Agreement shall be as follows:

- a) the provisions of the main body of this Agreement;
- b) the provisions of any schedule to this Agreement; and
- c) the provisions of any annex to this Agreement.

## **2. Commencement and Duration**

- 2.1. This Agreement takes effect and shall be enforceable on the date of signature of the contract by both parties (the “**Effective Date**”) and shall continue in effect until the expiry of thirty-six (36) months following the Seeker’s commercial launch date (the “**Expiry Date**”), unless terminated by either party as per the termination clauses of this agreement.
- 2.2. If either Party wishes to extend the duration of this Agreement, it shall notify the other Party, no less than three (3) months prior to the Expiry Date, and the duration of this Agreement shall be extended accordingly, subject to mutual agreement between the parties and, if required, the approval of the Authority.

## **3. Interconnection Services**

- 3.1. Interconnection Provider shall, from the Commercial Launch Date and thereafter for the duration of this Agreement, provide the following Interconnection Services to Seeker in accordance with the provisions of this Agreement (as further specified in Schedules 1 (Technical Specifications) and 2 (Network and service description)) and such other services as the parties may agree:

- 3.1.1. **Wholesale Fixed Call Termination Service:** Refers to a call conveyance service provided by a Telecommunications Operator that offers fixed voice service (the “Terminating Operator”) to its subscribers. The service is provided to another Telecommunications Operator but may also include another operator located outside of Ethiopia. The Terminating Operator’s network is handed over a call that originated on another operator’s network, including calls originating outside of Ethiopia. The Terminating

Operator conveys that call over its network and terminates it on the called party, which is a subscriber of the Terminating Operator.

- 3.1.2. **Wholesale Mobile Call Termination Service:** Refers to a call conveyance service provided by a Telecommunications Operator that offers mobile voice service (the “Terminating Operator”) to its subscribers. The service is provided to another Telecommunications Operator but may include another operator located outside of Ethiopia. The Terminating Operator’s network is handed over a call that originated on another operator’s network, including calls originating outside of Ethiopia. The Terminating Operator conveys that call over its network and terminates it on the called party, which is a subscriber of the Terminating Operator.
- 3.1.3. **Short Messaging Service (SMS) Termination Service:** Is a message conveyance service provided by a Telecommunications Operator. The service is provided to another Telecommunications Operator but may also include another operator located outside of Ethiopia. The Terminating Operator’s network is handed over to a MMS that originated on another operator’s network. The Terminating Operator conveys that MMS over its network and terminates it on the receiving party, which is a subscriber of the Terminating Operator.
- 3.1.4. **Wholesale Toll Free Interconnection Service:** Refers to a Call conveyance and termination service provided by a Telecommunications Operator (the “Terminating Operator”) to its subscribers. The Terminating Operator conveys a Call, which is to a number that forms part of the Terminating Operator’s number ranges as allocated by the Authority for toll free services, and handed over by Seeker at a Point of Interconnection for delivery to a Customer of the Terminating Operator’s Telecommunications Network.

3.1.5. **Emergency services:** Refers to a Call conveyance and termination service provided by a Telecommunications Operator that is connected to an emergency services organization (the “Terminating Operator”). The Terminating Operator conveys an Emergency Services Interconnection Call handed over by Seeker at a Point of Interconnection for delivery to the emergency services organization.

3.2. Each Party, where they are the Provider of the Interconnection Service, shall convey Calls and SMS received from the Seeker at the same standard and quality of service as such Party conveys similar Calls and SMS to their own customers.

**4. Charging for Services**

4.1. The Interconnection Charges payable for the Interconnection Services are set out in Schedule 3 (Interconnection Charges).

4.2. No charges shall be payable under this Agreement unless such charges are specifically referred to in this Agreement and are compliant with the Directive and any relevant regulations.

4.3. The charging structure and specific charges for each Service are set out in Schedule 3 (Interconnection Charges).

4.4. The Interconnection Seeker agrees to pay the charges as set out in this Agreement and is liable for payment of charges relevant to all Interconnection Services provided to it.

4.5. All charges are stated exclusive of VAT and any other applicable tax. Tax withholding, in relation to this Agreement, shall be done in accordance with applicable Ethiopian tax laws.

4.6. All successful Calls (where there is an answer line signal) shall be charged for the Call Duration, on a per second basis.

## 5. Billing and Payment

- 5.1. The Seeker shall pay to the Provider the Interconnection Fees incurred with effect from the start-date of the billing cycle.
- 5.2. The Seeker shall pay to the Provider the Interconnection Fees incurred with effect from the start-date of the billing cycle. Within ten (10) Working Days of the end of each Billing Period, the Provider will invoice the Seeker for all Interconnection Fees during that Billing Period and any VAT payable in connection with those Interconnection Fees. Invoices may not be issued prior to the start-date of the billing cycle.
- 5.3. Notwithstanding any provision to the contrary in this Agreement, the Provider shall be precluded from submitting any invoice to the Seeker later than ninety (90) Working Days after the end of the Billing Period to which such invoice relates.
- 5.4. All Interconnection Fees payable shall be paid on a “net-off” basis, so that the Party that owes the higher Interconnection Fees after invoices have been received (on or prior to the tenth (10<sup>th</sup>) Working Day after the end of the Billing Period) shall pay the net amount to the other Party:
  - 5.4.1. within thirty (30) Working Days of receipt of the other Party’s tax invoice; and
  - 5.4.2. into the other Party’s or other nominated bank account by way of direct deposits or electronic funds transfers.
- 5.5. The parties shall keep records showing clearly the Billing Information (CDRs) relating to the provision of the Interconnection Services by the Provider and all charges due pursuant to the Agreement for a period of six months after the end of the Billing Period to which such Billing Information relates. If the Parties are required by law to retain Billing Information for a longer period than six months, then that longer period shall apply. If the Seeker gives a notice under clause 5.7,

the provider shall keep a record of Billing Information until a final judgment is given or the dispute is resolved.

- 5.6. The billing party shall keep the recording of billing data (Invoices) for a period of at least ten years after the issuance of invoice according to clause 5.2. The data shall be in easily retrievable format if required for recalculation of any due amounts.
- 5.7. The Seeker may consider, in good faith, that there is a discrepancy between the amount charged in an invoice (including the amount of any Credits) and the amount properly due under this Agreement (“**Discrepancy**”). In these circumstances, the Seeker shall notify the Provider within ninety (90) Working Days of the date of receipt of the invoice, giving sufficient detail for the Provider to investigate the dispute.
- 5.8. Notwithstanding the provisions of clause 5.7, a dispute shall only be raised if the aggregate amount in dispute exceeds the greater of (a) fifty thousand Ethiopian Birr (50,000 ETB) or (b) one per cent (1%) of the invoiced amount. Further to aid in the interpretation of this clause, the following illustrations have been added:
  - 5.8.1. If the invoice amount is greater than 1% difference and above 50,000 ETB, it will be considered a dispute.
  - 5.8.2. If the invoice amount is greater than 1% difference but less than 50,000 ETB, it will not be disputed.
  - 5.8.3. If the invoice amount is less than 1% difference but above 50,000 ETB, it will not be disputed.
  - 5.8.4. If the invoice amount is less than 1% difference and below 50,000 ETB, it will not be disputed.
- 5.9. The Provider shall allow a duly authorized representative of the Seeker to have access to the records referred to in clause 12.6 during business hours within ten (10) Working Days of receipt of the Seeker’s notice under clause 5.7 to enable it to determine whether there is a Discrepancy.

- 5.10. If the Seeker gives notice of a Discrepancy under clause 5.7
  - 5.10.1. Where the notice is given before the due date of the invoice, the Seeker shall pay only the undisputed amount of the invoice in accordance with clause 5 (and the “net off” in clause 12.4 in respect of what the Seeker owes shall only apply to that undisputed amount); and
  - 5.10.2. the matter shall be referred for determination under the provisions of clause 12.11.5. In this case the Seeker will not be required to pay the disputed amount until the matter is determined.
  - 5.10.3. Should the disputed amount be decided in favor of the Provider, the Seeker shall pay the amount by the due date for the next invoice after determination of the dispute. Should the disputed amount be decided in favor of the Seeker, the Provider shall pay the amount by the due date for the next invoice after determination of the dispute (unless that amount had already been withheld by Seeker).
  - 5.10.4. If the paying party under clause 12.11.3 fails to pay the amount within the required time period, late payment interest shall apply under clause 5.12
  - 5.10.5. The Seeker waives the right to dispute any invoices not disputed within the ninety (90) Working Days period.
- 5.11. In the event of any Discrepancy, the Parties shall use their reasonable endeavors to resolve the dispute within twenty (20) Working Days, or such longer period as the Parties may agree in writing. If no resolution is reached in that time period, the Parties shall refer the matter to the Authority for determination and the Authority will govern the case as per the telecommunication dispute resolution directive No. 796/2021.
- 5.12. If either party fails to pay any amount due by it in terms of this Agreement within the specified period of payment, the defaulting party shall pay late payment

interest at the rate of 13% (thirteen percent) per annum (0.035% per day), calculated from the date that payment was due to the date of actual payment in full.

- 5.13. Notwithstanding any dispute between the Parties as to any payment, the Parties shall, throughout the term of this Agreement, remain obliged to observe and perform their obligations in terms of this Agreement.
- 5.14. All invoices shall be set out and paid in Ethiopian Birr.

## **6. Compliance**

- 6.1. The Interconnection Seeker shall ensure that its Equipment to be connected to the Optical Distribution Frame (ODF) or other Provider installations is in compliance with national and international standards.
- 6.2. The Interconnection Seeker shall not connect or knowingly permit the connection to the ODF or other Provider installations of any equipment which is not compliant Equipment with national and international standards or which is not necessary for the provision of telecommunications services by means of the relevant Infrastructure at the relevant Provider Site. The Interconnection Seeker shall ensure that such Equipment remains compatible with any relevant standards including, without limitation, Electromagnetic compatibility (EMC) requirements and electrical safety. The Interconnection Seeker shall comply with Provider's reasonable instructions on floor loading, heat output, or other relevant health, safety and security procedures before and during installation of any compatible Equipment at the Provider Site.
- 6.3. Provider shall not be obliged to provide to the Interconnection Seeker an ODF before the Interconnection Seeker has confirmed to Provider in writing that the equipment that the Interconnection Seeker proposes to attach to the ODF is and will remain compatible Equipment and will operate within the limits of the power feeding voltages and currents specified in the ODF specification.

- 6.4. If the Interconnection Seeker wishes to install equipment in Co-location facilities provided to the Interconnection Seeker by Provider, the Interconnection Seeker shall prior to the commencement of such installation or connection demonstrate to Provider:
  - 6.4.1. that such equipment is compatible with those standards for equipment to be installed in such areas as Provider may publish from time to time; and
  - 6.4.2. that the Interconnection Seeker and its employees and contractors are compatible with the standards published by Provider from time to time in relation to access requirements and working practices to be employed.

- 6.5. Provider shall accept, reject or request additional information in response to the Interconnection Seeker's communication within 5 Working Days of receipt.
- 6.6. Provider shall ensure that any Provider equipment installed at Provider Sites shall be and shall continue to be compliant and will operate within the limits of any relevant standards.

## **7. Interference with Others' Services**

- 7.1. When either Party has reasonable grounds to believe that the other Party is using equipment which is not compatible Equipment or is otherwise causing interference to other services, the first Party may:
  - 7.1.1. notify the other Party of its reasonable grounds for believing that there is use of equipment which is not compatible Equipment or interference taking place; and
  - 7.1.2. give the other Party a reasonable opportunity to demonstrate that this is not the case or to remedy the situation; and
  - 7.1.3. if the other Party fails to do so within a reasonable period suspend or cease service to the ODF concerned or if it is not possible to identify the ODF which is causing interference, service to the smallest number

of ODFs that can reasonably be identified as being necessary to suspend in order to cease or prevent the interference.

- 7.2. If the normal operation of a Party's equipment is adversely affected by the equipment of the other Party, is a threat to any person's safety or in case of emergency, the first Party may suspend, to the extent necessary, such of its obligations hereunder, and for such period as may be reasonable, to ensure the normal operation of the first Party's System or reduce the threat to safety.
- 7.3. If a Party reasonably considers the equipment used by the other Party is not Compliant Equipment, the other Party shall on request from the first Party to disconnect all necessary equipment in order to permit the first Party to test the characteristics of that ODF.
- 7.4. The relevant equipment or ODF shall be reconnected as soon as practicable when the situation has been remedied

## **8. Service levels**

- 8.1. The Parties will both observe the service levels set out in Schedule 4 (Service Level Agreement) of this Agreement.

## **9. Network Alteration and Modifications**

- 9.1. Provider shall give the Interconnection Seeker reasonable notice of any anticipated Network Alteration and Network Modifications. Provider shall provide to the Interconnection Seeker such information as the Interconnection Seeker may reasonably request including, to the extent reasonably practicable, the potential impact of the change on the service of the Interconnection Seeker.

## **10. Provisioning, Operation and Maintenance**

- 10.1. The procedures for the installation and testing of any equipment in respect of a Service as well as for the operation and maintenance thereof shall be governed by the provisions of Schedule 5 (Operations and maintenance procedures) and

any Technical Manuals and the Operations and Maintenance Manuals that may be agreed by the Parties.

## **11. Resolution of Disputes**

- 11.1. Each Party shall use its best endeavors to resolve any disputes between them concerning the implementation, application or interpretation of this Agreement (a “**Dispute**”), in the first instance through negotiation between the parties through the normal contacts, hereinafter referred to as Level 1.
- 11.2. In the event of the Parties failing to resolve the dispute at Level 1 within thirty (30) working days, either Party may upon service of notice to the other escalate the dispute to the determination by the Authority. The Party serving the notice shall include with such notice all relevant details including the nature and extent of the Dispute.
- 11.3. The time limits specified at paragraphs 13.1.3 above may be extended by mutual agreement between the Parties.
- 11.4. Nothing herein contained shall prevent a Party from seeking (including obtaining or implementing) interlocutory or other immediate or equivalent relief.
- 11.5. Disputes relative to fees and payment of charges under this Agreement shall be covered by the provisions of Clause 5.

## **12. Suspension**

- 12.1. In the event that either Party’s License to provide all or a material part of its Network is suspended by the Authority, the Party whose entitlement is not so suspended may suspend the Agreement (or such part thereof as may be reasonable in the circumstances) without advance notice, for so long as the suspension by the Authority remains in effect.
- 12.2. The suspending Party must, in seeking to suspend this Agreement, comply with the requirements for suspension of an Interconnection Agreement in, and subject to intervention by the Authority under, the Directive.

### **13. Termination**

- 13.1. If one Party's Network adversely affects the normal operation of the other Party's Network, or is a threat to any person's safety, the other Party may suspend, to the extent necessary, such of its obligations hereunder, and for such period as it may consider reasonable to ensure the normal operation of its Network or to reduce the threat to safety.
- 13.2. If a Party is in material breach of this Agreement (including failure to pay an undisputed sum due hereunder), the other Party may serve a written notice (the "breach notice") on the Party in breach specifying the breach and requiring it to be remedied within thirty (30) Working Days from the date of receipt of such breach notice.
- 13.3. If the Party in breach fails to remedy the breach within the period stated in the breach notice, the Party not in breach may terminate this Agreement after having given an additional thirty (30) Working Days written notice, subject to an intervention by the Authority, provided always that if the Party in breach remedies the breach within such thirty (30) Working Days' notice period, this Agreement shall not terminate as a result of such notice.
- 13.4. This Agreement may be terminated by either Party by giving not less than thirty (30) Working Days written notice, without compensation, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the terminating party subject to an intervention by the Authority, if the other Party:
  - 13.4.1. is unable to pay its debts;
  - 13.4.2. has a Receiver or Examiner appointed or has been subject to an application for the appointment of a receiver or an Examiner in relation to all or any of its assets or an encumbrancer has taken possession of all or a material part of its assets;

- 13.4.3. has an order made or a resolution passed for its winding up (other than for the purpose of amalgamation or reconstruction);
- 13.4.4. enters into a voluntary arrangement with creditors under the Commercial Code of Ethiopia Proclamation No. 1243/2021;
- 13.4.5. ceases to carry on business; or
- 13.4.6. becomes bankrupt, under the Commercial Code of Ethiopia Proclamation No. 1243/2021.

- 13.5. Either Party may terminate this Agreement without liability by giving written notice to the other Party if:
  - 13.5.1. remaining a Party to this Agreement would place the terminating Party at risk of breach of Sanctions or Trade Control Laws (as defined in clause 15.1) or any laws relating to bribery or corruption (as defined under clause 16.1.1); or
  - 13.5.2. compliance requirements of the applicable Sanction or Trade Laws (as defined in clause 15.1) render dealing of that terminating Party with any major vendors, suppliers or partners of that Party totally or substantially affected.
- 13.6. The partner may terminate this Agreement without liability by giving Ethio Telecom a written notice, if remaining a Party to this Agreement would place the partner at risk of breach of anti-bribery and anti-corruption laws that are enacted or enforced by any government outside of Ethiopia.
- 13.7. If a party to an interconnection agreement, filed with the Authority, intends to terminate such agreement, it shall give not less than sixty (60) working days' written notice to the other party, specifying the grounds for termination.
- 13.8. If the Agreement is terminated by the partner according to clause 13.6, Ethio Telecom, as it does not have an obligation to abide to bribery or corruption laws

enacted or enforced by governments outside Ethiopia, shall not be required to pay a compensation of any kind to the partner for failing to abide by those laws.

13.9. The terminating Party must, in seeking to terminate this Agreement, comply with the requirements for termination of an Interconnection Agreement in, and subject to intervention by the Authority in accordance with the Directive.

#### **14. Confidentiality**

14.1. Each party and its connected persons (being any directors, officers and employees, affiliates, advisors, subcontractors and auditors of that Party) shall;

- a. Hold confidential information in confidence;
- b. Not disclose it to any person other than its connected persons; and
- c. Use the confidential information only for the purpose of exercising or performing that party's right and obligations under this Agreement.

14.2. Clause 14.1 shall not apply to confidential information to the extent that;

- a. The confidential information is provided to the Authority, on the basis that the disclosing party requests that the Authority maintains the confidentiality of this information;
- b. The confidential information is requiring to be disclosed by law or by any stock exchange that may be established in Ethiopia, court of law, enforcement agency or governmental authority acting within a power given by law;
- c. confidential information is required to be disclosed so that the receiving party can fulfil its obligations under this agreement;
- d. The confidential information was already in the public domain when it was first made available to/receive by the receiving party;

- e. For confidential information which subsequently enters the public domain, other than through breach of clause 14;
- f. Written records show that, when the confidential information was first made available to the receiving party, it was already in the lawful possession of the receiving party or any of its connected persons; or
- g. That confidential information is disclosed by the Provider to a potential lender or sub-lender and that disclosure is made in accordance with clause 14.3.

14.3. Each Party shall disclose confidential information as permitted by this clause only if it is reasonably required and, in the case of disclosure under clause 14.2(g) only if the party to whom the discloser is made is informed of the confidential nature of the confidential information and enters into a confidentiality agreement with substantially the same terms as this clause.

14.4. Each Party shall maintain an audit trail of personnel who have access to any confidential information. The audit trail information shall be made available to the other Party on request.

14.5. Subject to clause 14.6, if this Agreement terminates, the receiving Party and its connected persons shall, within seven (7) calendar days after receiving a written request by the disclosing Party:

- a. Destroy, or return to the disclosing party, all copies of any document that contains any confidential information;
- b. Take reasonable steps to erase the confidential information from any computer or other digital device on which it is held; and
- c. Appoint one of its authorized officers to supervise the steps contemplated in clause 14.5(a) and 14.5 (b), and to certify in writing to the disclosing party that they have been carried out.

For the purpose of this clause 14.5, documents include any material prepared by or on behalf of either party or its connected persons which contain confidential information.

- 14.6. Each party and its connected persons may retain any confidential information to the extent required, and for the time period specified, by any applicable law, rules of any stock exchange or a concerned body.
- 14.7. The provisions of this clause shall survive for a period of two (2) years after termination of this Agreement.

## **15. Sanctions and Trade Control Laws**

- 15.1. Each Party shall, in the context of this Agreement, comply with all applicable economic, trade and financial sanctions laws, regulations, embargoes or restrictive measures administered (“**Sanctions**”), as well as all trade control laws and regulations (“**Trade Control Laws**”) enacted or enforced by the governments of Ethiopia, the United Kingdom, European Union or the United States of America, provided that, in case of Ethio Telecom:
  - a. its obligations under this clause 15 in relation to any Sanctions and Trade Control Laws enacted or enforced by governments outside of Ethiopia shall only apply to the extent that the partner has given written notice to Ethio Telecom of such Sanctions and Trade Control Laws; and
  - b. shall not be held liable to non-compliance with requirements of such Sanction and Trade Control Laws for transactions or dealings have already commenced or executed before Ethio Telecom was notified by the partner.

- 15.2. Each Party shall, in the context of this Agreement:

- a. Not knowingly do anything which may cause the other Party or its Affiliates to breach Sanctions or Trade Control Laws;

- b. Provide such assistance, documentation and information to the other Party as that Party may reasonably request; and
- c. Have the right to be indemnified by the Party which has breached the relevant provisions for any direct losses incurred.

15.3. Each Party shall notify the other Party in writing as soon as it becomes aware of an actual or potential investigation or breach in relation to the Sanctions and Trade Control Laws or any material change in the status of any of the Parties to this Agreement in respect of:

- a. Sanctions status (e.g., the inclusion on a Sanctions list in any applicable jurisdiction (as stated in clause 15.1 above); or
- b. Trade Control status (e.g., becoming listed on a restricted party list).

**16. Anti-bribery and Anti-corruption**

16.1. Each Party (and any natural or legal person that either Party may use for the performance of services in connection with this Agreement, including employees, agents, consultants, contractors and subcontractors) shall:

- 16.1.1. comply with all Ethiopian laws, regulations, binding codes of practice, rules or requirements of any governmental agency, professional or regulatory authority relating to anti-bribery and anti-corruption (“**Anti-bribery and Anti-corruption Law**”);
- 16.1.2. not do or omit to do anything likely to cause the other Party to be in breach of any such Anti-bribery or Anti-corruption Law;
- 16.1.3. not give, offer, promise, receive or request any bribes, including in relation to any public official;
- 16.1.4. maintain throughout the term of this Agreement a program designed to ensure compliance with the Anti-bribery or Anti-corruption Law, including an education and training program and measures reasonably calculated

to prevent and detect violations of the Anti-bribery or Anti-corruption Law;

- 16.1.5. if requested by the other Party, provide the other Party with sufficient reasonable assistance to enable it to perform any actions required by the government for the purpose of compliance with any Anti-bribery or Anti-corruption Law or in connection with any investigation relating to the Anti-bribery or Anti-corruption Law;
- 16.1.6. only be paid by the other Party for services performed, by wire transfer or other traceable instrument to a bank account in that Party's name;
- 16.1.7. promptly notify the other Party of any allegation of fraud, bribery or corrupt or unlawful practices made against it in court, arbitration or administrative proceedings, or if any investigation is commenced in respect of such allegations, at any time during the term of this Agreement; and
- 16.1.8. ensure that any natural or legal person external to it who is performing services in connection with this Agreement does so only on the basis of a written contract which secures from such person terms equivalent to those imposed on it in this clause and it shall in this regard be responsible for the observance and performance by such person of these terms, and shall be directly liable to the other Party for any breach.

- 16.2. Each Party hereby indemnifies the other and its directors, officers, employees, agents and Affiliates against all loss of any kind which the other may suffer as a result of a breach of this clause by it.
- 16.3. If either Party (acting in good faith) determines that there has been a breach by the other Party of this clause, such a breach shall be deemed a material breach of this Agreement and the non-breaching Party shall have the right to terminate

this Agreement pursuant to clause 13 without prejudice to its rights under this Agreement or at law.

## **17. Intellectual Property**

- 17.1. Except as expressly otherwise provided in this Agreement, intellectual property rights shall remain the property of the Party creating or owning the same and nothing in this Agreement shall be deemed to confer any assignment or right or title whatsoever or license of the intellectual property rights of one Party to the other Party, and nothing in this Agreement shall be deemed to restrict the rights of the Party to own, use, enjoy, license, assign or transfer its own Intellectual Property.
- 17.2. Save as expressly permitted under this Agreement, all intellectual property in either party's trademarks and brands shall not be used by the other party other than as agreed between the parties.
- 17.3. The performance of a Party's obligation under this agreement, the other Party's receipt of the services, and any right granted by one Party to the other Party under this agreement shall not infringe any intellectual property of a third party (other than to the extent the infringement relates to intellectual property provided to the Party performing the obligation by the other Party).
- 17.4. Each Party shall inform the other Party about any infringement or potential infringement of intellectual property rights of the first Party related to this Agreement and provide any necessary assistance to prevent and/or stop such infringement.

## **18. Amendment**

- 18.1. Amendments and supplements to this Agreement, including its Annexes and Schedules shall in order for them to be valid, have been drawn up in writing, dated and signed by both Parties or shall be in compliance with an intervention by the Authority in accordance with the Directive. Such amendment and supplements

shall not affect the validity or enforceability of any of the remaining provisions of this Agreement.

- 18.2. A Party may seek to amend this Agreement by serving on the other a review notice if:
  - 18.2.1. either Party's license is materially modified (whether by amendment or replacement); or
  - 18.2.2. an amendment is necessary to give effect to any material change in the law or regulations (including codes of practice whether or not having the force of law, but issued by a regulatory authority or an equivalent body) governing telecommunications in Ethiopia; or
  - 18.2.3. this Agreement makes express provision for a review or the Parties agree in writing that there shall be a review; or
  - 18.2.4. a material change occurs, including enforcement action by any regulatory authority, which materially and adversely affects or reasonably could be expected to materially and adversely affect the ability of a Party to comply with its obligations under this Agreement; or
  - 18.2.5. this Agreement is assigned or transferred by the other Party except if prior written consent to the assignment or transfer is not required under clause 20 hereof; or
  - 18.2.6. there is a general review pursuant to clause 18.4 hereof.
- 18.3. A review notice shall set out in reasonable detail the issues to be discussed between the Parties.
- 18.4. Either Party may initiate a general review of this Agreement, which the initiating Party can do only once in any twelve (12) month period following the date that is nine (9) month after the Effective Date of this Agreement, by serving the other

party a review notice. This general review may include the charges for the Services set out in this Agreement.

- 18.5. On service of a review notice, the Parties shall forthwith negotiate in good faith the matters to be resolved with a view to agreeing the relevant amendments to this Agreement. The Parties shall escalate any unresolved matters to the Chief Executive Officers of each Party for good faith negotiations before the end of the relevant period (defined in clause 18.7).
- 18.6. For the avoidance of doubt, the Parties agree that notwithstanding service of a review notice, this Agreement shall remain in full force and effect.
- 18.7. If the Parties fail to reach agreement on the subject matter of a review notice within three (3) calendar months (the relevant period) in each case from the date of service of such review notice, either Party may, not later than one calendar month after the expiration of the relevant period, request in writing for the Authority to determine:
  - 18.7.1. the matters upon which the Parties have failed to agree;
  - 18.7.2. whether this Agreement should be modified to take account of such matters; and, if so
  - 18.7.3. the amendment or amendments to be made.
- 18.8. The Parties shall enter into an agreement to modify or replace this Agreement in accordance with what is agreed between the Parties to conform with the Authority's determination.
- 18.9. The Parties may, at any time, agree in writing a variation to the time periods specified above in relation to a particular review notice.

## **19. Force Majeure**

- 19.1. A Force Majeure event means any irresistible and insurmountable event which is beyond a party's reasonable control, which operates in FDRE, including by the way of indication (but not as exhaustive list), the event specified below, but in all cases insofar as the relevant events reasonably prevent or delay the impacted Party from performing all or part of its obligations under this Agreement:
  - 19.1.1. Any revolution, invasion or war (whether declared or otherwise), uprising, sabotage or action by a public enemy;
  - 19.1.2. Natural disaster, strike (excluding any strike of any Provider Personnel), lock out or epidemics;
  - 19.1.3. Any acts by military, police or civil authorities (whether national, local or foreign); and
  - 19.1.4. Any event that is considered as a force majeure by the Law of FDRE, including as defined under the Ethiopian Civil Code of 1960.
- 19.2. Neither of the Parties to this contract shall be held liable for delays or nonperformance of their respective parts due to an event of Force majeure.
- 19.3. The party affected by the force majeure event shall:
  - 19.3.1. promptly notify the other party in writing of the cause of the delay or non-performance, the likely duration of the delay or non-performance and the effect of the force majeure event on its ability to perform any of its obligations under this Agreement, and shall update this information promptly on request by the other Party;
  - 19.3.2. use all reasonable endeavors to overcome the force majeure event as soon as practicable and limit the effect of the delay or non-performance on the other party including the making of any alternative arrangements for resuming the performance of its obligations which may be practicable without incurring material additional expense; and

- 19.3.3. Reasonably after the cessation of the force majeure event, notify the other party thereof and resume full performance of its obligations under this Agreement.
- 19.4. A force majeure event shall not include any event that is caused by any failure of a contractor or supplier of the Party relying on the force majeure event or which that Party could have avoided or overcome by exercising a standard of reasonable care at a reasonable cost or due to a lack of funds for any reason or any other inability to pay.
- 19.5. Clause 19.2 shall not excuse a party's delay or non-performance arising from a force majeure event to the extent that the affected party's breach of clause 19.3.1 or 19.3.2 prevents the other party from mitigating the effects of the delay or non-performance arising from that force majeure event.
- 19.6. If the force majeure continues for a period beyond ninety (90) days, the Party (other than the Party affected by the force majeure event) may terminate this Agreement by giving written notice to the other Party.

## **20. Assignment of Rights and Obligations**

- 20.1. Unless otherwise agreed in writing, no rights, benefits or obligations under this Agreement may be assigned or transferred, in whole or in part, by a Party without the prior written consent of the other Party, such consent not to be unreasonably withheld or delayed.
- 20.2. Any change of shareholding of a Party shall not affect the enforceability of this Agreement between the Parties and shall not require the consent of the other Party.

## **21. Limitation of Liability**

- 21.1. In no event shall either Party be liable to the other or to any third party beyond obligation of this Agreement hereunder for any indirect, consequential, special or punitive loss or damages (including any indirect loss of business profits, goodwill

or business opportunity) and however caused in connection with this Agreement even if that has been advised of the possibility of such loss.

21.2. Nothing in this agreement shall operate to exclude or restrict a party's liability:

- 21.2.1. Any indemnity under this Agreement;
- 21.2.2. For death or personal injury caused by their negligence or willful misconduct;
- 21.2.3. For losses suffered by the other party arising out of fraud, willful misconduct or willful default;
- 21.2.4. For breach of clauses 15 (confidentiality), 16 (sanctions and trade controls), 17 (anti-bribery and anti-corruption) or 18 (intellectual property rights); or
- 21.2.5. For any other liability that cannot be excluded or limited as a matter of applicable Law.

21.3. Both parties agree that they shall be liable for all direct losses arising from this agreement.

21.4. The Parties agree that they shall be liable for the following categories of loss or compensation and, as such, the following shall be deemed not to be indirect or consequential losses;

- 21.4.1. Fines or penalties imposed on one of the Party because of a breach of Laws or Regulatory instruments of FDRE as a result of default of the other Party in connection with this agreement;
- 21.4.2. Service credits payable in accordance with Schedule 4 (Service Level Agreement).

21.5. Subject to clauses 21.1 to 21.4, each Party's total aggregate liability for any and all losses arising out or in connection with the performance or contemplated

performance of this agreement in any 12 month period shall be limited to a sum equal to one hundred percent (100%) of the total fees paid and/or payable by that Party under this agreement for the last 12 months.

- 21.6. For the purposes of clause 21.5, the total fees paid and/or payable by that Party under this agreement shall disregard any “net off” under clause 12.4.
- 21.7. Each party shall be liable for their employees and representatives.

## **22. Notices**

- 22.1. Any notice to be given by one party to the other party in connection with this Agreement shall be in written form and signed by or on behalf of the party given it.
- 22.2. A notice shall be duly served if:
  - 22.2.1. Delivered by hand, at the time of actual delivery and signed by concerned personnel of the receiver or
  - 22.2.2. Sent by facsimile, upon its receipt being confirmed;
  - 22.2.3. Sent by registered delivery post (deemed to be received on the tenth (10<sup>th</sup>) Working Day following the date of such posting),
  - 22.2.4. Sent by company email and the recipient confirms receipt, provided that it shall not be permissible for either Party to serve any notices or documents relating to dispute resolution proceedings by e-mail and same shall be done by hand or the registered post.
- 22.3. Where delivery occurs outside working hours, notice shall be deemed to have been received at the start of working hours on the next following Working Day.
- 22.4. The addresses of the parties for the purpose of clause 22.1 are:

**Ethio Telecom**

Address: Public Enterprise existing under the laws of Ethiopia, Principal business at Churchill road, Lideta Sub-city, Woreda 10, PO. Box 1047, Ethiopia;

Email:

### **The partner**

Address: ..... Sub-City \_\_\_\_\_, , Addis Ababa, Ethiopia

Email:

- 22.5. Each party shall notify the other party in writing of a change to its details in clause 22.4 from time to time. All email addresses to be used for giving and receiving notices and other communications under this Agreement shall be company email addresses.

### **23. Entire Agreement**

This Agreement represents the entire understanding of an agreement between the Parties in relation to the subject matter of this Agreement, and, unless otherwise agreed in writing, supersedes all previous understandings, commitments, agreements relative to the service.

### **24. Waiver**

The waiver of any breach of, or failure to enforce, any term or condition of this Agreement shall not be construed as a waiver of any other term or condition of this Agreement. No waiver shall be valid unless it is in writing and signed on behalf of the Party making the waiver.

## **25. Severability**

The invalidity, unenforceability of any provision of this Agreement shall not affect the validity or enforceability of the remaining provisions of this Agreement.

## **26. Relationship of parties**

The relationship between the Parties is that of independent contractors. Nothing in this Agreement shall be construed to make either Party hereto an agent, joint venture or partner of or with the other. Neither Party is granted any right of authority or agency, expressly or implicitly, on behalf of, or in the name, of the other nor any right to legally bind the other in any manner whatsoever. Neither Party shall become liable through any representation, act or omission of the other which is contrary to or unauthorized by the provisions of this Agreement.

## **27. Governing law**

The interpretation, validity and performance of this Agreement shall be governed in all respects by the laws of Ethiopia and the Parties submit to the exclusive jurisdiction of the courts of Ethiopia.

## **28. Language**

The agreement shall be written in English language. All correspondence and other documents pertaining to the agreement which are exchanged by the parties, including any notices under clause 22, shall be written in the English Language.

## **29. Counterparts**

This Agreement may be executed in any number of counterparts, each of which when executed and delivered is an original and all of which together evidence the same Agreement. Delivery of such counterparts by email attachment or telecopy

shall be an effective mode of delivery. The parties confirm that any facsimile copy of another party's executed counterpart of this Agreement (or its signature page thereof) will be deemed to be an executed original thereof.

IN WITNESS WHEREOF THIS AGREEMENT WAS ENTERED INTO THE DAY  
AND YEAR FIRST ABOVE

SIGNED for and on behalf of

**Ethio Telecom**

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

In the presence of:

**Witnesses:**

Name: \_\_\_\_\_

Signature \_\_\_\_\_

Address \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Signature \_\_\_\_\_

Address \_\_\_\_\_

Date: \_\_\_\_\_

SIGNED for and on behalf of

**The Partner**

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

In the presence of:

**Witnesses:**

Name: \_\_\_\_\_

Signature \_\_\_\_\_

Address \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Signature \_\_\_\_\_

Address \_\_\_\_\_

Date: \_\_\_\_\_

## Schedule 1: Technical Specifications

### 1. DEFINITIONS

In this Schedule 1, unless inconsistent with or otherwise indicated by the context:

1.1   **“DSCP”** means Differentiated Services Code Point;

1.2   **“IETF”** means Internet Engineering Task Force;

1.3   **“ISO”** means International Organization for Standardization;

1.4   **“LAN”** means local area network;

1.5   **“OSI”** means Open Systems Interconnection;

1.6   **“RFC”** means Request for Comment;

1.7   **“SBC”** means Session Border Controller;

1.8   **“SIP”** means Session Initiation Protocol;

1.9   **“UDP”** means User Datagram Protocol; and

1.8   **“URI”** means Uniform Resource Identifier.

Any expression not defined herein shall bear the meaning assigned to it in the main body of this Agreement and cognate expressions shall bear corresponding meanings as in the main body of this Agreement.

## 2. TECHNICAL SPECIFICATIONS

### 2.1 Points of Interconnection

Where Ethio Telecom is the Provider, its Points of Interconnection are:

Nifas - Silk

Bole

and such other Point of Interconnection in the Ethio Telecom network as may be agreed between the Parties.

Where the partner is the Provider, its Points of Interconnection are:

The Partner Site 1

The Partner Site 2 and such other Point of Interconnection in the partner network as may be agreed between the Parties.

### 2.2 Protocol Requirements

This clause 2 sets out the signaling protocol, codecs and communication protocols permissible across the POIs established at a PoP. The signaling protocol is a protocol that is used to initiate, modify and terminate Calls.

A codec is an algorithm that is used to digitize and encode an analogue signal for the purposes of transmission through a packet Network and decoding of the digitized signal to produce an analogue signal on the receiving end.

The communication protocol is the set of standard rules for data representation, signaling, authentication and error detection required to send information over a communications channel. The communication protocol includes the Network and transport layers as defined in the OSI model.

### 2.3 Signaling Protocol

The signaling protocol shall be SIP version 2 as specified in the following IETF RFCs:

- 3261: SIP;
- 2833: Real-time Transport Protocol Payload for Dual Tone Multi-Frequency signaling digits, telephony tones and telephony signals; and
- SIGTRAN (SS7 over IP)

Neither Party shall use proprietary signaling protocols for Interconnection.

The IP address in the IP header field must correspond with the “via” field in the SIP header.

## 2.4 Codecs

The specified codecs are defined in their respective ITU-T Recommendations. The codecs between the respective Networks of each Party shall be restricted to any of the following:

- G.711 (A-law);
- G.729A and B; and
- Any other codes as may be agreed by both parties in the Infrastructure Planning and Service Management Terms.

Neither Party shall use proprietary codecs across a PoP, unless expressly provided for in this Agreement, and after successful testing.

## 2.5 Communication Protocol

The communication protocol includes the transport protocol and the Network protocol as defined by ISO.

The transport protocol refers to the protocol that is used at the transport layer for reliable communication between end-users. The OSI transport protocol is specified by ISO 8073, 8072 and any other relevant international standards as shall be agreed.

The Network protocol refers to the transferring of variable length data sequences from a source to a destination via one or more Networks while maintaining the quality of service requested by the transport protocol. The Network protocol is specified by ISO 8473 and any other protocols as may be agreed between the Parties in the Infrastructure Planning and Service Management Terms.

## **2.6 Traffic Restrictions**

A Peer Connection shall only be used for the transmission of voice signaling and bearer traffic. Only IP packets that contain the IP address of the respective SBCs in their IP headers are valid. All other IP packets are not valid and shall be rejected. Voice signaling traffic is limited to SIP version 2 messages that are used for Call setup and Call tear down. All Transmission Control Protocol and Stream Control Transmission Protocol traffic shall be rejected. Only UDP traffic shall traverse a PoP, unless otherwise agreed between the Parties.

## **2.7 Equipment Restrictions**

The Parties shall agree the inter-operable IP elements for Interconnection in the Infrastructure Planning and Service Management Terms.

## **2.8 Security Considerations**

All concerned security related issues will be discussed and agreed after both parties agreed on high level interconnection architecture and POI deployment in the Infrastructure Planning and Service Management Terms.

# **3. PROVISIONING PROCEDURE**

## **3.1 Provisioning of Peer Connections**

The provisioning procedures for Peer Connections are to be agreed between the Parties in the Infrastructure Planning and Service Management Terms.

### **3.2 IP Addresses**

Each Party is responsible for providing its own public addresses for interconnection integration.

### **3.3 IP Routing**

Each Party shall ensure that all IP addresses used for the purposes of Interconnection are not disclosed to any third Party in any form whatsoever and any detailed requirement and implementation will be discussed and agreed between both parties in the Infrastructure Planning and Service Management Terms.

### **3.4 Router Configuration**

Neither Party shall provide a configuration for any router of the other Party. The Parties shall provide to each other in writing the required information to build and implement their respective router configuration.

## **4. GRADE AND QUALITY OF SERVICE**

Both parties will discuss on grade and quality of service so as to reach the best quality of service delivery based on standard documents and KPI. The parties will make another agreement in relation to grade and quality of services.

Each Party shall maintain the quality of service parameters as defined in Schedule 4 (Service Level Agreement).

SIGNED for and on behalf of

Ethio Telecom

Authorized signatory



SIGNED for and on behalf of

The Partner

Authorized signatory

## **Schedule 2: Network and Service Description**

### **1. Definitions**

Unless the context indicates otherwise, capitalized terms used in this Schedule 2 have the meaning given in clause 1 of the main body of this Agreement.

### **2. Interconnection Services supported**

- 2.1. The Provider shall provide the Interconnection Services, incidental services and functionality, in accordance with the Technical Specifications.

### **3. Provision of Interconnection Services**

- 3.1. The Provider shall, from the Commercial Launch Date and thereafter for the duration of this Agreement, provide the Interconnection Services to the Seeker, in accordance with the provisions of this Agreement.
- 3.2. The unmodified originating “A” number shall be transferred by the Seeker with the Call and CDR across the Point of Interconnection and the relevant instruction relating to presentation (CLIP) or non-presentation restriction (CLIR) of the “A” number to the Terminal Equipment.
- 3.3. For SMS, if the Provider’s mobile customer is not located within the Provider’s mobile Network, that Party will endeavor to provide routing information to the Seeker’s Short Message Service Switching Centre in order to route the Short Message to the current destination of that customer. In such a case, the Provider is not responsible for the delivery of the Short Message traffic.
- 3.4. This Agreement does not apply to the delivery of Calls or SMS that have originated on the Telecommunications Network of Third Party Operators, foreign operators or international carriers.

#### **4. Establishing and maintaining Interconnection**

- 4.1. The Parties shall each take whatever steps are necessary to:
  - 4.1.1. facilitate the Interconnection of the respective Telecommunications Networks used by the Parties up to and at the Points of Interconnection
  - 4.1.2. to complete all necessary testing for the provision of the Interconnection Services, within forty (40) Working Days from the Effective Date, or such longer period as may be agreed in writing between the Parties. In any event, both Parties shall ensure that the Commercial Launch Date shall be not later than fifteen (15) Working Days following the completion of all necessary testing for the provision of the Interconnection Services.
- 4.2. Each party shall bear its own set up costs for the Interconnection Services, including but not limited to last mile connection, interfaces, and software upgrade, except where otherwise agreed by parties.
- 4.3. Provider shall, at its own cost and expense, establish Points of Interconnection for the delivery of Calls and SMS by the Seeker in compliance with the Technical Specifications. Points of Interconnection can include third party owned facilities where the Parties may interconnect at their own cost and expense.
- 4.4. The Seeker shall, at its own cost and expense, provide, install, configure, commission, maintain and be responsible in all respects for all of its own Interconnection Links, and other apparatus and equipment, with sufficient capacity necessary to ensure the conveyance of all Telecommunications from the Seeker's Telecommunications Network to the Provider's Telecommunications Network at the Points of Interconnection.
- 4.5. Provider shall ensure that it has sufficient capacity necessary to accept Calls and SMS that are delivered by the Seeker at the Provider's Points of Interconnection. Seeker shall provide quarterly traffic forecasts, at the end of each calendar

quarter, of Calls to be delivered to the Provider at each Point of Interconnection in the following two calendar quarters. If Seeker's Call traffic exceeds that forecast amount in any quarter by more than twenty-five percent (25%), then Provider shall not be liable for any Service Level failure that occurs during that calendar quarter as a result of the inaccurate forecast. Seeker shall also provide rolling two-year indicative traffic forecasts of Calls at the end of each calendar quarter.

- 4.6. Should either Party wish to change the configuration or augmentation of capacity at its Points of Interconnection specified in the Technical Specifications, or at any additional Points of Interconnection established by it pursuant to the provisions of clause 4.7, by changing the capacity available at such Point of Interconnection or terminating the use thereof, which requires the other party to make a change in its Network, the party desiring the change shall give the other party a written notice of such intention, setting out in detail the proposals and reasons for the proposed change. The notice period shall be forty (40) working days, where procurement is required and, in all other circumstances, twenty (20) working days. The Parties shall use their best endeavors to reach written agreement on the terms and conditions applicable to such change of capacity, or the augmentation of capacity at other existing Points of Interconnection, if required; failing which, the matter shall be dealt with in accordance with the provisions of clause 12 of the main body of this Agreement.
- 4.7. Should Provider wish to establish Points of Interconnection in addition to those specified in the Technical Specifications, or should Seeker wish Provider to establish Points of Interconnection in addition to those specified in the Technical Specifications, that requesting party shall give the other Party not less than twenty (20) Working Days written notice of its requirements in this regard, where upon the Parties shall promptly meet and use their reasonable endeavors to reach written agreement on the terms and conditions upon which such additional Points of Interconnection are to be established; provided that where the Parties fail, for whatever reason, to reach such written agreement within a reasonable period of

time, no such additional Points of Interconnection shall be established. Each Party shall be responsible for the cost of building and maintaining the Interconnection of the respective Networks used by the Parties and any such additional Points of Interconnection, should they be established, in accordance with the Technical Specifications.

- 4.8. Neither Party shall make nor permit to be made, other than as contemplated in this Agreement, any alteration, adjustment or addition to:
  - 4.8.1. the Points of Interconnection specified in Technical Specifications; or
  - 4.8.2. any additional Points of Interconnection established; or
  - 4.8.3. any element of the other Party's Telecommunications Network, in such a way as to adversely affect, impair or degrade the operation of the other Party's Telecommunications Network or so as to otherwise adversely affect, impair or degrade the conveyance of Telecommunications pursuant to the Interconnection of the respective Networks used by the Parties. Without in any way limiting the generality of the foregoing, each Party shall take whatever steps are reasonably necessary to minimize service failures, congestion and signaling disturbances that would affect the ability of the other Party to convey Telecommunications across such Party's Telecommunications Network.
- 4.9. If the Interconnection between either Party's Network is interrupted for any reason whatsoever, the Party within whose Network such interruption arose shall, at its own cost and expense, procure a restoration of service as soon as is reasonably practicable, in accordance with the service levels specified in Schedule 4 (Service Level Agreement), and in accordance with the operation and maintenance procedures specified in Schedule 5 (Operations and maintenance procedures).
- 4.10. Where a Party intends to modify its Telecommunications Network or any apparatus or equipment comprising its Network or any stored commands or

protocol pertaining to such Network then, to the extent that such modification may reasonably be expected to have the effect of requiring the other Party to:

- 4.10.1. modify such other Party's Telecommunications Network; or
- 4.10.2. replace or cease to produce or supply any item of Telecommunications equipment pertaining to Interconnection and produced or supplied by or to such other Party immediately prior to the intended modification,

the Party proposing such modification shall provide written notice to the other Party detailing the proposed modification. The Party proposing to modify its Telecommunications Network shall, on request of the other Party, consult with such other Party and provide all reasonable co-operation and assistance to facilitate such modification.

## 5. **Conveyance of SMS**

- 5.1. In respect of the conveyance and termination on the Network of either Party of Short Messages in terms of this Agreement, the volume of which might be high, it is required that such conveyance and termination not adversely affect or impair the operation of the Network of such Party, specifically the Points of Interconnection link capacity.
- 5.2. The Parties shall, at their own cost and expense, take all necessary measures to prevent the conveyance and termination of SPAM and fraud on the Network of either Party. In the event that either Party detects or reasonably believes that SPAM or fraudulent SMS is being conveyed to and terminated on the Network of such Party (the "**Detecting Party**"), the Detecting Party shall notify the other Party (the "**Notified Party**") in writing of such event (including relevant details of the SPAM), where after the Notified Party shall take all necessary measures to prevent the conveyance of such SPAM or fraudulent SMS.
- 5.3. The Parties shall establish suitable procedures to investigate complaints by the End-users of either Party in respect of the conveyance and termination of SPAM

or Short Messages with a view to resolving such complaints as soon as is reasonably practical.

- 5.4. Neither Party shall convey Short Messages originating on its Network to the Network of the other Party:
  - 5.4.1. that are unlawful or fraudulent;
  - 5.4.2. that are unsolicited or unwelcome Short Messages
  - 5.4.3. that are for any purpose against public interest, public order or national harmony;
  - 5.4.4. that are defamatory, obscene or which contain other unlawful material;
  - 5.4.5. that are in connection with the infringement of any copyright, patent, trademark, trade secret or other proprietary rights of any third party or rights of privacy;
  - 5.4.6. that interfere with, damage, disrupt or unlawfully gain access to any service, equipment or computer network belonging to the either Operator;
  - 5.4.7. where the source number of the Short Messages does not fall within its MSISDN range; or
  - 5.4.8. where the source numbers of the Short Messages are alphanumeric.
- 5.5. The Parties should act in good faith, take necessary steps to block, in its Network, any Short Messages handed over from each other's Network, which fail to observe the requirements of this clause 5 or any applicable laws, rules, regulations, standards or codes in Ethiopia. In such event, the parties have responsibility to notify immediately the other party of the blocking.

## 6. Operational matters

- 6.1. Neither Party shall do, nor permit to be done, nor omit nor permit the omission of anything in relation to such Party's Telecommunications Network that may reasonably be expected to:
  - 6.1.1. cause any damage or degradation to the other Party's Network; or
  - 6.1.2. materially interfere, in any way whatsoever, with the proper and normal operation of the other Party's Telecommunications Network.
- 6.2. The Parties shall provide to each other the operations and maintenance services specified more fully in Schedule 5 (Operations and maintenance procedures), for the purpose of enabling them to report any fault in, breakdown of or problem in respect of the respective Telecommunications Networks used by the Parties. Where such fault, breakdown or problem pertains to the Interconnection of the Networks used by the Parties, the Parties shall as soon as they become aware thereof, follow the fault reporting procedures specified in Schedule 5 (Operations and maintenance procedures). The Parties shall co-operate fully with one another in the development of any required further procedures for the testing and clearing of faults occurring between the respective Networks used by the Parties.
- 6.3. The Parties shall each, at their own cost and expense, take whatever steps are necessary to fulfil their respective obligations and exercise their respective rights in terms of this Agreement and shall not endanger the health and safety of any party including, without limitation, one another's employees, agents, directors, sub-contractors and end-users, and in this respect each Party shall be responsible for the safe operation of the equipment comprising such Party's Telecommunications Network on its side of any Point of Interconnection.
- 6.4. Neither Party shall, directly or indirectly, use or allow the use of any Subscriber Identity Module ("SIM") for the aggregation of voice traffic in a SIM box or bypass termination. No voice traffic or other Telecommunications, including without

limitation, international inbound traffic to Ethiopia, outbound traffic from Ethiopia or domestic traffic within Ethiopia, or any combination of the foregoing, may be routed using SIM boxes or any bypass termination, whether in a SIM box or similar device and no routing manipulation shall be done which has the consequence that the Points of Interconnection between the other Party's Network and any other third party Network, whether inside or outside Ethiopia, is bypassed. In the event that the other Party detects that a SIM box or any bypass termination is being used in any manner contrary to the foregoing, the other Party shall, at its sole discretion, be entitled, upon such prior written notice as may be reasonably commercially practicable in the circumstances or upon such written notice as is reasonably commercially practicable thereafter, to take the necessary action to prevent the continuation of such use, including, but not necessarily limited to, the blocking of the bypass termination.

- 6.5. Notwithstanding anything to the contrary in this Agreement, neither Party (the "**Invoiced Party**") shall be liable to the other Party for payment of interconnection fees for Calls routed using SIM boxes, whether in a SIM box or similar device, and/or fraudulent Calls; provided the Invoiced Party proves with reasonable satisfaction the termination of such Calls on the Invoiced Party's Network.
- 6.6. The Provider shall convey Telecommunications received from the Seeker during those periods of time and at the same standard and quality of service as such Party conveys similar Telecommunications to their own customers.
- 6.7. Nothing contained in this Agreement shall preclude either Party from entering into similar agreements with Third Party Operators.
- 6.8. The Parties undertake to co-operate fully with one another in the development of mutually acceptable procedures for the testing and clearance of faults occurring between the respective Telecommunications Networks used by the Parties, thereby augmenting the procedures specified in Schedule 5 (Operations and maintenance procedures).

- 6.9. The Parties shall co-operate and consult with one another in good faith regarding the operation and implementation of this Agreement and shall use their best endeavors to resolve any difficulties that may arise in relation thereto.
- 6.10. The Parties shall each, within twenty (20) Working Days of the Effective Date, appoint a representative and notify the other Party in writing of the identity of such appointee. Such representative shall, together with the representative of the other Party, be responsible for overseeing the day-to-day practical implementation of this Agreement including, without limitation, attending to matters pertaining to numbering, physical and electrical interface(s), provisioning (including commissioning), transmission, signaling, maintenance, Call accounting, augmentation of capacity, prevention of fraud, malicious Call tracing, new or modified features and services including time-scales for implementation and any other technical or operational matter that may arise from time to time.

SIGNED for and on behalf of  
Ethio Telecom

Authorized signatory

SIGNED for and on behalf of  
The Partner

Authorized signatory



### **Schedule 3: Interconnection Charges**

#### **1. Charges**

- 1.1. The charges payable for the National Interconnection Services shall be those prescribed and approved under Determination No. 2 of 2024, issued by the Ethiopian Communications Authority ("ECA") in April 2024.

SIGNED for and on behalf of

The Partner

Authorized signatory

## **Schedule 4: Service Level Agreement**

### **1. Introduction**

Under the terms of the Agreement, the Parties have agreed to provide Interconnection Services to each other. This SLA sets out the minimum service levels that must be met by each Party as an Interconnection Provider. If the Interconnection Provider does not meet the minimum service levels specified in this SLA, the Interconnection Seeker will be entitled to a pro rata credit of the monthly fee for the Interconnection Services in respect of which the minimum service level is not met. These credits shall be the Interconnection Seeker's sole remedy for any non-performance by the Interconnection Provider as defined in this SLA, save for losses and other liability for which the Interconnection Provider is liable under clause 21 of the Agreement.

### **2. Duration**

This Service level terms will be in use effective to the end of the initial grace period of 90 calendar days and shall terminate or expire as and when the Agreement terminates or expires in accordance with clause 13 of the Agreement.

### **3. Written Notice**

Where reference to written notice is made in this SLA, the Parties shall comply with the notice requirements set out in clause 22 of the Agreement.

### **4. Defined terms**

Unless the context otherwise requires, terms defined in the Agreement shall bear the same meaning in this SLA.

### **5. Parameters**

The parameters for the Interconnection Services shall comply with generally accepted principles as defined by the Authority.

## 6. Abbreviations

Term	Description
ALOC	Average Length of Conversations/Call
ASR	Answer Seizure Ratio
CLI	Calling Line identification
FST	Failure Start Time
ITU	International Telecommunications Union
KPI	Key performance indicators
MNO	Mobile network operator
MPR	Monthly Performance Report
MTRS	Maximum Time to Restore the Service
NER	Network Efficiency Ratio
PDD	Post Dial Delay
QoS	Quality of Service
SLA	Service Level Agreement
MOS	Mean Opinion Score
TT	Trouble Ticket

## 7. Definitions

Term	Description
Fault	Means a material defect or impairment in the Interconnection Service that causes an interruption in provision of that Service, or anything that gives rise to a request for assistance or a report, as described in this SLA;
Minimum service Levels	Means the minimum performance levels of the Interconnection Services to be provided to the Interconnection Seeker by the Interconnection Provider;
Pro Rata Credit	Means the credit payable for non-performance, in proportion to the amounts payable under the Agreement;
Service Levels	Means the performance of the Interconnection Services provided to the Interconnection Seeker by the Interconnection Provider;
Service Outage	Means a period during which the Interconnection Service is interrupted and unavailable for use by the Interconnection Seeker;
SLA	means a formal agreement between an interconnecting party, an access seeker, and a provider that is reached after a negotiating activity, with the scope of assessing the service characteristics, responsibilities, and priorities of each party.
Trouble Ticket	Means a method used by the Interconnection Provider to record a perceived Fault, including a Service Outage or a failure to meet an agreed to guarantee. A unique Trouble Ticket reference number will be raised and given to the Interconnection Seeker and should be used each time as reference the Interconnection

	Seeker for any Fault update or, if appropriate, to inform Interconnection Provider of restoration of the Service.
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## **8. Quality of Services**

The Interconnection Provider shall provide the Interconnection Services in such a manner as will ensure that the Achieved Service Levels in respect of those Services are equal to or higher than such specific Service Levels.

## **9. Technical parameters**

The following Quality of Service requirements will define the level of performance.

Guaranteed availability of the service (in a month time)

Maximum Time to Restore Service in case of:

- a) Emergency Incident: 4 hours
- b) Critical Incident: 5 hours
- c) Severe/Major Incident: 8 hours
- d) Minor Incident: 16 hours

## **10. Service Levels**

The Service Levels applicable to the Interconnection Services are defined below:

### **10.1. Maximum Time to Restore Service (MTRS)**

MTRS is a maintenance metric that measures the maximum time required to troubleshoot and repair the Interconnection Service. MTRS calculates the period between the start of the incident and the moment the system returns to service.

### **10.2. Emergency Incident (NER = 0%)**

A complete outage of the Interconnection Service causing a service unavailability, including but not limited to:

- a) Total loss of connectivity and/or Traffic between the Interconnection Seeker and Interconnection Provider
- b) Service affecting outage at the Point of Interconnection.

#### **10.3.Critical Incident (NER <60%)**

A critical performance degradation of the Interconnection Service causing a serious degradation of the quality as measured by the Service Levels indicated within this SLA.

#### **10.4.Severe/Major Incident**

The functionality of the Interconnection Service is affected to a large extent, major performance degradation or loss of important function occurs. Degradation of the Interconnection Service, either of the performance or the quality, includes but it is not limited to:

- a) A loss or failover of the routes, without isolation with the other network;
- b) Degradation of the QoS to any Terminating destination, being define as when any measured value for the Service Level is below the target threshold as indicated in the SLA;
- c) Errors in the network causing partial loss of service.

#### **10.5.Minor incident**

A minimal impact to the Interconnection Service functionality. This fault implies irregular network behavior without operational constriction and without an impact on business, included but not limited to:

- a) Failure affecting partial set of circuits that does not affect call termination;
- b) Intermittent failures not affecting any service delivery.

#### **10.6. Availability of the service**

Availability of the Interconnection Service means the Interconnection Seeker has access to the service offered by the Interconnection Provider via the POI.

#### **10.7. Credits**

The Credits shall be a percentage of the total invoiced amount for Interconnection Services during the relevant Billing Period in respect of which the Interconnection Services affected by the Service Level failure were provided.

##### **1. Service Levels and penalties**

If any Achieved Service Level falls short of the relevant Service Level the Interconnection Provider shall be liable to the Interconnection Seeker for the following Credits.

<b>Category</b>	<b>Service Level</b>	<b>Tolerance</b>	<b>Credit</b>
MTRS	Emergency incidents to be resolved within four (4) hours	Achieves Service Level at least 95% of the time during the relevant period	Nil
		Achieves Service Level less than 95% of the time	3%

		during the relevant period	
Critical incidents to be resolved within five (5) hours	Achieves Service Level at least 95% of the time during the relevant period	Nil	
	Achieves Service Level less than 95% of the time during the relevant period	3%	
Severe/Major incidents to be resolved within eight (8) hours	Achieves Service Level at least 95% of the time during the relevant period	Nil	
	Achieves Service Level less than 95% of the time during the relevant period	3%	
Minor incidents to be resolved	Achieves Service Level at least 95% of the time	Nil	

	within sixteen (16) hours	during the relevant period	
		Achieves Service Level less than 95% of the time during the relevant period	3%
Availability of Service	Interconnecti on Service to be available at least 99.995% of the time excluding the events of Force Majeure		3%

## 2. Key Performance Indicators

The Key Performance Indicators are parameters that the Interconnection Provider must use its best endeavors to meet, but for which there are no Credits for failure to meet those parameters.

Trouble shooting KPIs Reference

Severity	Explanati on	Situatio n	Updates	Fault Resol ution

		<b>Examples</b>		
Emergency	Serious problem: Typically where the service is completely down / unavailable	Total outage (0% NER)	First update within 30 minutes with trouble ticket number. Subsequent updates every 30 minutes or as agreed.	4 hours
Critical		(<60% of Min NER)  CLI, FAS  RCs: Destination out of order, Forbidden, Service Unavailable	First update within 30 minutes with trouble ticket number. Subsequent updates every 30 minutes or as agreed.	5 hours – all services

Major/Severe	Partial problem: Considerable impact on service and which causes service or quality degradation	Destination impairment (<75% of Min NER)	First update within 45 minutes with trouble ticket number. Subsequent updates every 1 hour or as agreed.	8 hours
		Quality issues e.g. one way speech, silent calls, noise		
Minor	Minor problem: Intermittent problem which do not have major impact on service, however the	Destination impairment (<80% of Min NER)	First update within 45 minutes with trouble ticket number. Subsequent updates every 1 hour or as agreed.	16 hours

	service is not working as expected		
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The rest of the KPIs cannot be defined with a single target because they are destination dependent.

### 3. Service Level Exemptions

The Service Levels in this SLA shall not apply where the Service Level failure is a direct result of:

- a) Interruptions during agreed planned maintenance or other activities agreed in writing by the Interconnection Seeker for the purpose of allowing the Interconnection Provider to upgrade, change, implement an order, maintain, or repair the Networks and equipment;
- b) The acts or violation of the Interconnection Seeker or its subcontractors on the Interconnection Provider networks and equipment; or
- c) A force majeure event.

### 4. Fault Reporting Procedure

Severity of Error	Initial Feedback	Update Interval	Incident Report
Emergency	30 minutes	30 minutes	2 days
Critical	30 minutes	45 minutes	3 days
Severe/Major	45 minutes	2 hours	2 days

Minor	45 minutes	1 hour	N/A
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Incident Reports should only be sent under request.

RCO for Critical incidences must be shared

## 5. Traffic and Capacity Forecasts

Traffic and Capacity Forecast by traffic type and per Interconnection Link/Pol

Traffic streams	Year 1				Year 2			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
MO voice (minutes)								
MT voice (minutes)								
MT voice Mobile to mobile								
MT voice Mobile to Fixed								
MO SMS traffic (count)								
MT SMS traffic (count)								

MT Toll free traffic (minutes)							
Emergency call traffic (minutes)							
Capacity (in Erlang)							

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## **Schedule 5: Operations and Maintenance Procedures**

### **1. Faults**

#### **2.1 Fault notification**

Any fault occurring in the Network or Systems of either Party that impacts (or risks impacting) on the provision of the Interconnection Service shall be immediately reported to the operations and maintenance Contact Points of the other Party in accordance with clause 8 and Annex 1 (Contact Points) of this Schedule 5.

#### **2.2 Content of fault report**

The Party reporting the fault shall specify at a minimum the following:

- a) the nature and expected duration of the fault;
- b) the manner in which the fault impacts (or risks impacting) the Interconnection Service; and
- c) the estimated time required for the repair of that fault and/or restoration of the Interconnection Service.

#### **2.3 Rectification of faults**

Each Party will use its best endeavors to diagnose and resolve each fault in its Network or Systems promptly, and where applicable, in accordance with the applicable Service Levels.

### **3. Network traffic management principles**

3.1 Ethio telecom and “The partner” shall be responsible for monitoring and controlling the flow and routing of traffic to maximize the effective use of their own network.

3.2 Ethio telecom and the partner shall carry out monitoring activities at regular intervals and at various levels of the network hierarchy to optimize the use of network capacity and the quality of service. Ethio Telecom and the partner shall, in accordance with the terms of the

Interconnection Agreement between them, deploy resources to carry out all activities required to monitor and maintain the quality of service.

3.3 Either party can also carry out specific monitoring activities on a case by-case basis at its discretion or in response to a request from the other license where this is technically and economically feasible.

3.4 Ethio telecom telephone number is available on a 16hrs basis to receive network traffic management queries from the interconnected partner and vice versa. (Contact Points shall be listed in the Delegation Matrix).

3.5 Either party shall use reasonable endeavors to notify the other party when major problems occur which are likely to affect interconnect traffic. To that effect, the parties shall provide a 16hr contact point to receive network traffic management information. In the event of major service failure in particular, Party's shall share relevant information's in order to resolve the problem and restore service. Under no circumstances however shall the parties be required to provide commercially sensitive information, nor shall the information supplied be used for any other purpose than network traffic management.

#### WRITTEN NOTICE

Where reference to written notice is made in this operational manual, e-mail or written notices that have been acknowledged will be accepted as adequate notice. Defined terms :-

Unless the context otherwise requires, terms defined in the main body of the Agreement shall bear the same meaning in this schedule.

### 4. OPERATIONS AND MAINTENANCE PROCEDURES

#### 4.1 Routing Management

- a. All routing should be carried out in accordance with the National Numbering Plan, as published by ECA and amended from time to time.
- b. National numbers shall not be passed in the international format.

- c. Each party shall manage the routing of outgoing calls up to the network boundaries and incoming calls from the network boundaries to their destination.
- d. Parties shall, in good faith, cooperate to minimize the impact of congestion in its network on the other licence's network. However, the affected network shall use all efforts to reduce the impact of excessive traffic.
- e. Either party shall be able to require the other to deliver incoming traffic to their networks on specific interconnect links and to request the use of proportional routing or other traffic management techniques.
- f. Each party shall pass onto the other the full CLI and CLIR for all calls, to the extent that the CLI and CLIR are available.

#### 4.2 New Numbering Blocks

- a. Prior to opening new numbering blocks on its network, either party should notify the party in writing at least one (1) month in advance of the activation of such numbers.

### 5. Provision of CDRs

- a. Provider shall provide Seeker with all CDRs generated by the Provider Network to the extent that they relate to the Interconnection Services provided under this Agreement by Provider and any other information that Seeker may reasonably require in relation to the Interconnection Services and notified to Provider, in writing. Provider shall only filter, combine, collate or link such CDRs before delivering them to Seeker to the extent necessarily required to ensure that only CDRs relevant to the Interconnection Services provided in terms of this Agreement are provided to Seeker. This shall ensure that the process remains transparent and secure.

### 6. Audit right

Seeker or its duly authorized representatives reserves the right to audit (at Seeker's own cost) Provider's billing data, systems and/or processes to ensure

Provider's compliance to clause 4.2a at any point for the duration of this Agreement, provided that such audits do not exceed four (4) times during a period of twelve (12) consecutive months. This may include but is not limited to a Seeker resource or duly authorized representative being granted accompanied access to premises, processes, records, or personnel of Provider in order to fulfil the requirements of the audit.

## **7. Data protection**

Provider warrants and undertakes to Seeker, in respect of all of Seeker's Data that it may process on behalf of Seeker, that it shall at all times only process such Data for the purposes necessary detailed in the Agreement and, in so doing, shall act solely on the instructions of Seeker. In particular, Provider shall not itself exercise control or transfer, or purport to transfer, control of Seeker's Data to a third party, except as it may be specifically instructed to do by Seeker or as may be agreed between the Parties.

## **7. Meaning of Data**

In this clause 0, "**Data**" means any personal data about Seeker, Seeker's customers, Seeker's suppliers or employees that may be used to identify an individual, including MSISDN numbers, call data records, traffic data, location data, billing information, financial information.

## **8. Contact Points**

### **8.1. General**

The contact points for both Parties related to the Services provided under the Agreement are set out in Annex 1 (Contact Points) and for all notices and other communications relating to notices of Disputes under Clause 11 of the Agreement are set out in Annex 2 (Dispute Notices). The Annexures will be regularly updated at the operational meetings.

## 8.2. Amending contact information

Either Party may amend their contact information within the Annexures if required, with one (1) week prior notice to the other Party. In exceptional cases, either Party may make changes to the contact information without prior notice but must inform the other Party as soon as reasonably possible. The case(s) for exceptional circumstances shall be agreed between the Parties during regular operational meetings.

Where either Party has made changes to the contact information without prior notice to the other, and where the other Party before being notified of the change has sent any notice to the old contact information, the Party making the change cannot claim that the notice sent to the old contact has not been valid for any purposes whatsoever.

SIGNED for and on behalf of

Ethio Telecom

Authorized signatory

SIGNED for and on behalf of

The Partner

Authorized signatory

## Annex 1: Contact Points

### Part A: Billing and finance contact points

#### a) Ethio Telecom Contact Points

Name/ Position/ Department/ Address	Telephone; Mobile; Fax; Email	Responsibilities

#### b) The partner Contact Points

Name/ Position/ Department/ Address	Telephone; Mobile; Fax; Email	Responsibilities

### Part B : First level Operation and maintenance contact points

Except, if specifically provided otherwise, all communications relating to this Agreement regarding operation and maintenance shall be to the following contact points:

#### c) Ethio Telecom Contact Points

Name/ Position/ Department/ Address	Mobile; Email	Responsibilities


d) The Partner Contact Points

Name/ Position/ Department/ Address	Mobile; Email	Responsibilities

or to such other addresses as the Parties may notify from time to time pursuant to this Operational and Maintenance Plan.

**Annex 2: Dispute Notices**

**Level 1 Escalation points**

The Level 1 escalation points within the Parties in relation to resolution of Disputes shall be as follows :

a) Ethio Telecom Contact Points

<b>Title</b>	
<b>Address</b>	
<b>Telephone</b>	
<b>Mobile</b>	

<b>Email</b>	
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b) The Partner Contact Points

<b>Title</b>	
<b>Address</b>	
<b>Telephone</b>	
<b>Mobile</b>	
<b>Email</b>	

or to such other addresses as the Parties may notify from time to time pursuant to this Operational Plan. If a dispute is sent via email, the same must be followed up in writing with delivery in person or by fax or mail.

**Escalation points for other notices regarding Disputes**

For any other notices of the Agreement, the escalation points within the Parties shall be as follows:

c) Ethio Telecom Contact Points

<b>Title</b>		
<b>Address</b>		
<b>Telephone</b>		
<b>Mobile</b>		

<b>Email</b>		
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d) The Partner Contact Points

<b>Title</b>		
<b>Address</b>		
<b>Telephone</b>		
<b>Mobile</b>		
<b>Email</b>		

or to such other addresses as the Parties may notify from time to time. If a dispute is sent via email, the same must be followed up in writing with delivery in person or by fax or mail.

**Annex 4 : Fault Closure**

<b>FAULT CLOSURE</b>	
<b>Fault Reference:</b>	<b>Contact Name:</b>
<b>Time of Closure:</b> hh-mm	<b>Date:</b> dd/mm/yy
This is to confirm that the fault has been repaired/cleared and hereby close the instance.	
<b>Comments:</b>	

IN WITNESS WHEREOF THIS AGREEMENT WAS ENTERED INTO THE DAY AND  
YEAR FIRST ABOVE

Signed for and on behalf of Ethio Telecom	Signed for an on behalf of the partner
Signature:	Signature:
Name:	Name:
Title:	Title:
Date:	Date:
WITNESS:	WITNESS:
Signature:	Signature:
Name:	Name:
Date :	Date :