MALAWI COMMUNICATIONS REGULATORY AUTHORITY

CALL FOR PUBLIC REPRESENTATIONS ON THE PROPOSED DRAFT INDIVIDUAL LICENCE TO PROVIDE PUBLIC TELECOMMUNICATIONS SERVICES IN THE REPUBLIC OF MALAWI TO BE AWARDED TO

CELCOM LIMITED

The Malawi Communications Regulatory Authority (MACRA) would like to inform the general public that it is in the process of issuing an Individual Licence to provide Public Telecommunications Services to CELCOM Limited.

Pursuant to Section 18 (4) as read together with Section 17 (1) of the Communications Act, No. 68:01 of the Laws of Malawi ("the Act"), MACRA would like to call the general public to make representations on the appended proposed draft Licence for CELCOM Limited.

All representations should be sent via either the surface mail or e-mail or fax to the address below by close of business on 28th April, 2011

The Director General
Malawi Communications Regulatory Authority
Private Bag 261, Blantyre
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Notice issued at Blantyre, this 8th day of April, 2011

CHARLES NSALIWA
Director General

Issued without alteration or erasure, and void if altered or erased

Public Telecommunication Services Licence for CELCOM Limited
TERMS AND CONDITIONS OF THE LICENCE

THE LICENCE

In accordance with Sections 17 and 20 of the Communications Act, MACRA grants this Licence to CELCOM LIMITED ("the Licensee") to provide Telecommunication Services consisting of public fixed voice and mobile voice telephony services and such telecommunications and additional services as shall be approved by MACRA ("the Services") to any person in the Republic of Malawi for a period of Fifteen (15) years from the date when this licence comes into force ("the Effective Date"), subject to the conditions set out below.

For the purpose of providing the Services under this Licence, the Licensee is authorised—

(a) To set up, own and operate a public fixed and mobile voice telephony network;
(b) To connect to other Telecommunication Operators in the Republic of Malawi;
(c) To procure, distribute, sell, rent, install and maintain Terminal Equipment for use in connection with its Services; and
(d) To do all other things necessary or requisite to the provision of the Services.

1. INTERPRETATION

1.1 This document constitutes the Licence in its entirety;
1.2 The Schedules hereto shall form part of this Licence;
1.3 Terms used but not expressly defined in this Licence have the meaning given in the Act.
1.4 All technical terminology used in this Licence shall have the same meaning as that ascribed to the terminology by the International Telecommunication Union (ITU)
1.5 Words and expressions defined in any Clause shall, for the purposes of that Clause, bear the meaning assigned to such words and expressions in such Clause.
1.6 A provision conferring rights and obligations shall, notwithstanding that it is only in the interpretation Clause, be given effect as if it were a substantive Clause in the Licence.
1.7 Unless the context otherwise requires—

1.7.1 “Act” means the Communications Act, Cap. 68:01;
1.7.2 “Authority” means the Malawi Communications Regulatory Authority or such successor organisation or entity. The word “MACRA” shall have a corresponding meaning;
1.7.3 “Authorised Foreign Operator” means any person duly authorised under applicable law to operate a telecommunication network or provide a telecommunication service in another country;
1.7.4 “CDMA” means Code Division Multiple Access
1.7.5 “Community Service Phone” means Terminal Equipment which—

(i) is registered as such by the Licensee in its own records;
(ii) is made available to the general public for the provision of the Services, and to this end is conveniently accessible;
(iii) is in a form of umbrella phones or such form as may be agreed between the Licensee and MACRA; and
(iv) is located in an Under-Served Area or in a community centre
1.7.6 “Coverage” means making available the Services to any Customer in the locality;
1.7.7 “Customer” means any person who—

(a) through the purchase of a sim card or otherwise, the Licensee has agreed, in writing or otherwise, to provide any of the Services to; or
(b) has signed a contract with the Licensee for the provision of the Services, which contract has not been terminated; or
(c) has signed a contract with a Telecommunications Service Provider for the provision of the Services, which contract has not been terminated; or
(d) has signed a contract with a fixed and or mobile operator with whom the Licensee has made an international roaming agreement and who is in the Republic of Malawi.
1.7.8 “Directory Service Provider” is an operator who keeps records of its customers and provides the same to the public either online or through other forms of publication;
1.7.9 “Effective Date” means the date on which this Licence is published in the Gazette for the purpose of bringing the Licence into effect;
1.7.10 “Emergency Service” means any service in respect of any event or circumstances provided within any locality by any police, fire, ambulance and any other related authority;
1.7.11 “ETSI” means the European Telecommunications Standards Institute;
1.7.12 “Exchange Rate” means the value of the Malawi Kwacha in terms of United States Dollar as published by

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the Reserve Bank of Malawi from time to time;

1.7.13 ‘GSM’ means Global System Mobile communications as defined by ETSI;

1.7.14 ‘GSM Memorandum of Understanding or GSM MoU’ means the agreement first entered into on 7 September 1987 by telecommunications administrators and operators for the implementation of an-European digital cellular mobile telecommunications systems, with later amendments;

1.7.15 “Interconnection” means the physical connection of Telecommunication Networks in order to allow the users connected to any one such Telecommunication Network to have access to users connected to other Telecommunication Networks or to access services provided by means of such other Telecommunication Networks;

1.7.16 “International Connection Services” means the transport of any communications originating either in any public telecommunication network in Malawi and terminating outside of Malawi or originating outside of Malawi and terminating in any public telecommunications network in Malawi and international gateway shall refer to the equipment necessary for the provision of International Connection Services; conversely an International Gateway Licence may refer to a licence for the provision or use of international gateway equipment;

1.7.17 “International Gateway Operator” means any Telecommunication Operator in the Republic of Malawi authorised to connect directly to networks in other countries authorised to provide telecommunication services to the public;

1.7.18 “ITU” means the International Telecommunication Union;

1.7.19 “Leased Line” means a dedicated point to point circuit leased from any other Telecommunication Operator for the purpose of carrying telecommunications traffic;

1.7.20 “Master Customer Contract” means the terms and conditions on which the Licensee provides any of the Services to Customers;

1.7.21 “MVNO” means Mobile Virtual Network Operator;

1.7.22 “Network Access Agreement” means a network access agreement entered into by the Licensee and another service provider for the provision of network access to other service providers.

1.7.23 “National Communications Policy” means the statement of objectives for the communications sector published from time to time by the Minister under section 105 of the Act;

1.7.24 “Net Operating Revenue” means, in respect of any financial year of the Licensee and without any double counting, the total invoiced revenue of the Licensee (less discounts, VAT and other indirect taxes) derived from the provision of the Services, net of any interconnection fees and bad debts actually incurred. For the avoidance of doubt, Net Operating Revenue does not include revenue from the sale or rental of Terminal Equipment.

1.7.25 “Quarter” refers to 1/4th of a Year;

1.7.26 “Regulation” means any regulation made under sections 32 and 44 of the Act;

1.7.27 “Rural” means any area outside the boundaries of the city, town assemblies and district centres in Malawi;

1.7.28 “Services” means any or all of the services which the Licensee is authorised to provide under clause 2 of this Licence, except any services which are authorised under and are subject to the provisions of a separate licence;

1.7.29 “Service Provider” means any person who is in the business of providing any of the Services to another and includes a Telecommunications Service operator;

1.7.30 “Tariff” means any tariff, fee, subscription or charge to a Customer or Service Provider for the provision of the Services;

1.7.31 “Telecommunication Network” means a telecommunication network operated by a Telecommunication Operator;

1.7.32 “Telecommunication Operator” means the operator of a telecommunication network designated by MACRA under section 24 of the Act;

1.7.33 “Terminal Equipment” means any handset or other equipment to be connected to a fixed and public mobile radio network;

1.7.34 “Under-served Area” means any city, township, town, location, village or human settlement or any part therefore where less than 10 % of the inhabitants of the area have access to PSTN exchange lines at the date of issue of this and where it is necessary to roll out community service telephone to address the eduction of geographical disparities through proportional distribution of such phones and shall, in any event, not be areas in the territory that are listed in Schedule 2;

1.7.35 “Universal Access Fund” means a fund established and administered by MACRA for the purpose of financing the improvement of access to public telecommunications services in Rural and Under - served Areas;

1.7.36 “Voice Telephony Service” means the commercial provision to the public of the direct transport and

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switching of speech in real time between switched network termination points;

1.7.37 “VSAT” means Very Small Apparture Terminal, a satellite earth station used to provide a dedicated communication channel between a particular fixed point and another such point where neither is a termination point of the Public Telephone Network or of any other network used to provide Voice Telephony Services.

1.7.38 “Year” means a calendar year consisting of 365 days or 366 days in a leap year. Consequently, any reference to “days” in this Licence refers to calendar days.

2. SCOPE OF THE LICENCE AND SERVICES

2.1 The Licensee is hereby designated a Telecommunication Operator within the meaning of section 24 of the Act.

2.2 The Licensee may install and operate any domestic transmission capacity and switching infrastructure for providing the Services within the Republic of Malawi that it may require for its fixed and mobile radio network.

2.3 The Licensee may use the transmission capacity and switching infrastructure of other Telecommunication Operators.

2.4 The Licensee shall provide international services to its Customers by means of connection to its own international gateway or any authorised International Gateway Operator. Where the Licensee requires operation of its own international gateway, it shall apply for a separate international gateway licence.

2.5 Subject to the terms of this Licence, this Licence shall be valid for 15 years and shall enable the Licensee to provide the Services throughout the Republic of Malawi.

2.6 The Licensee may carry out any activity authorised by this Licence in association with another person or persons. The terms and conditions of this Licence shall apply to any such person or persons while engaged in such activity as well as to the Licensee.

2.7 The services that the Licensee is authorised to provide by means of its fixed and mobile radio network include—

(a) Fixed voice telephony services;
(b) Mobile voice telephony services including MVNO;
(c) Public Pay phones;
(d) Telex and Telegram Services;
(e) Facsimile;
(f) Data communications, including Internet access;
(g) International and national mobile telecommunications services;
(h) Leased line services;
(i) Such Value added telecommunications and additional services as may be approved by the Authority, including—

(i) Short messaging services (“SMS”);
(ii) Voicemail;
(iii) Pre-paid calling card and electronic top-up services;
(iv) EV-DO high speed data access;
(v) Instant messaging services;
(vi) Video conferencing services;
(vii) Interactive voicemail and voice services;
(viii) Financial transactions including, without limitation, account balance transfers, funds transfers, bill payments and online auctions;
(ix) Virtual telephony; and;
(x) Tracking services.

(j) the provision of international as well as domestic roaming services; and

(k) Any equivalent, similar or improved services which have yet to be developed, provided that where any such service is an entirely new service to be introduced by the Licensee, such service shall first be notified to and approved by MACRA before being introduced and provided further that such approval by MACRA shall not be unreasonably denied.

2.8 The Licensee shall not subcontract the provision of the Services or the operation of its Network to any third party without the approval of the Authority.

3. RIGHTS AND OBLIGATIONS TO PROVIDE TELECOMMUNICATION SERVICES

3.1 The Licensee shall, construct, maintain and use a Telecommunication Network within Malawi and provide telecommunications services in terms of this licence and the Act.

3.2 The Licensee may enter into interconnection and access agreements with other Telecommunication Operators in accordance with the provisions of Sections 26 and 28 of the Act respectively and any Regulations made hereunder.
3.3 Without prejudice to clause 3.1, the Licensee shall be entitled to—
   
   (a) sell or lease the use of; and

   (b) install or maintain, any telecommunications facility or apparatus, including, without limitation, any customer premises equipment, whether or not it is owned by the Licensee, subject to any terms and conditions that may from time to time be prescribed by MACRA and which are applicable to all Telecommunication Operators.

3.4 Subject to clause 3.5 and 2.8, the Licensee shall be entitled by virtue of this Licence to operate the telecommunications network and to provide all of the Services together with all other rights granted hereunder.

3.5 The Licensee is authorised to exercise all or any of its rights granted pursuant to the Licence, by itself and/or in co-operation with any third party agent, contractor or Telecommunications Service Provider (each a “Third Party”) provided that, in circumstances where the Licensee elects to exercise any of its rights under this Licence in co-operation with any Third Party—
   
   (a) the Licensee shall enter into a written agreement with any such Third Party which contains such terms as to ensure that the Licensee is, at all times, in compliance with the terms of this Licence and any applicable laws and regulations then in force;

   (b) the Licensee shall remain responsible to MACRA for the performance of its obligations under the Licence irrespective of any act or omission of any such Third Party; and

   (c) the Licensee shall notify MACRA of any agreement to outsource the provision of the Services entered into by the Licensee pursuant to this clause 3.5 at least thirty (30) days prior to the commencement of activities pursuant to such agreement. MACRA, having due regard to the commercial considerations then applying to the Licensee, may require the Licensee to modify the proposed agreement thereof within fifteen (15) days of receipt of the aforesaid notice, provided that MACRA shall not require any modification to be made which would, as a result, render the Licensee to be in a less favourable commercial or legal position than any other Telecommunication Operator.

4. TYPE APPROVAL

4.1 The Licensee shall permit any Customer to connect any type approved Terminal Equipment to any relevant public telecommunications network.

4.2 The Licensee shall accept as conclusive evidence that an item of Terminal Equipment is type approved based on a written statement of compliance from MACRA; from a type approval organisation of international standing recognised by MACRA.

4.3 The Licensee shall consult with MACRA from time to time regarding the arrangements for testing and type approval of Terminal Equipment.

5. ROLL-OUT OBLIGATION

5.1 The Licensee shall provide Coverage for public fixed and mobile telecommunication services as specified in Schedule 1.

5.2 The Licensee shall ensure that public pay phones are installed and maintained in the Rural and Under-Served Areas and by the dates specified in Schedule 1.

5.3 The Licensee shall provide an international roaming service and, to this end, it shall use its best endeavours to enter into agreements with mobile operators in other countries.

5.4 Pursuant to the Network Coverage as set out in Schedule 1 above, the Licensee shall submit to the Authority not later than thirty (30) days after the end of its financial year a report of its performance in relation to the network roll out targets in the preceding financial year.

6. UNIVERSAL ACCESS OBLIGATIONS

6.1 Universal Access Fund—
   
   (a) MACRA shall from time to time consult with the Licensee on the actions to be taken to achieve the objectives of the National Communications Sector Policy.

   (b) The Licensee shall contribute to the Universal Access Fund (UAF) in accordance with the provisions of the Act, the National Communications Sector Policy and any applicable Regulations. Provided that the Licensee shall not be required to contribute in any year in which no other Telecommunications Operator providing Voice Telephony Services so contributes.

6.2 Internet Connectivity to Schools—
   
   (a) The Licensee shall, four years from the Effective Date, provide, sustain and maintain free internet connectivity to at least one public educational institution located in the Southern Region, Central Region, Eastern Region and Northern Region of the country in accordance with a program to be agreed between the Licensee and MACRA as part of the Licensee’s corporate social responsibility.

6.3 Community Service Phones

The Licensee shall provide Community Service Phones in Underserved areas as set out in Table S1.1 to Schedule 1. In the performance of its roll-out obligation, the licensee shall use its best efforts to ensure that that it achieves the commitments, promises and undertakings it made in its application for the Licence including the provision of Community Service Phones in villages.
7. USE OF FREQUENCIES

7.1 The Licensee shall apply to be assigned with radio frequencies for its network usage and operate its network on radio frequencies as assigned by the Authority.

7.2 The Licensee shall only use an assigned frequency after the grant of a valid radio Licence covering that frequency and in accordance with the terms of the radio Licence.

7.3 The Authority may assign additional frequencies to the Licensee as required to meet the growth in demand for the Service in accordance with the national frequency band plan.

7.5 Within six (6) months from the Effective Date, the Licensee shall compile a register of all the frequencies it is using or proposing to use and provide a copy of this register to MACRA. Thereafter, the Licensee shall maintain the register and shall provide MACRA with a copy of the register.

7.6 The Licensee shall apply to be assigned with radio frequencies for its network usage and operate its network on radio frequencies as assigned by the Authority. Without prejudice to the foregoing, and subject to payment of the requisite fees, the Authority shall assign to the Licensee a minimum of six (6) MHz in the GSM 900 Band, eight (8) MHz in GSM 1800, five (5) MHz in 2100, and four (4) MHz in the E-GSM.

8. LEASED LINES

8.1 The Licensee shall provide Leased Line Services in accordance with the applicable standards of the ITU and other international entities on a non-discriminatory basis within (90) days of receipt of a request for such a service.

8.2 If a Leased Line Service requested by a Customer from the Licensee is not provided within ninety (90) days from the date of receipt of such request, then the Licensee shall allow that Customer to connect a point-to-point transmission link for the purpose of obtaining access to public telecommunications services, provided that any conditions that MACRA may impose are complied with.

8.3 The Licensee is entitled to lease lines from any other Telecommunication Operator on reasonable and non-discriminatory terms and conditions.

8.4 In the event of a dispute between the Licensee and another Telecommunication Operator regarding the lease of transmission capacity, MACRA may determine reasonable terms and conditions upon application by either party.

9. EMERGENCY SERVICES

9.1 The Licensee shall, after consultation with the authorities responsible for Emergency Services, make plans or other arrangements for the provision or, as the case may be, the rapid restoration of such telecommunication services as are practicable and may reasonably be required in Emergencies.

9.2 The Licensee shall, on request by any such person as is designated for the purpose in the relevant plans or arrangements made under clause 9.1, implement those plans or arrangements in so far as is reasonable to do so.

9.3 Nothing in this clause shall preclude the Licensee from—

(a) recovering the costs which it incurs in making or implementing any such plans or arrangements from those on behalf of or in consultation with whom the plans or arrangements are made; or

(b) implementing any plans or arrangements conditional upon the person or persons for whom or on whose behalf that plan or arrangement is to be implemented indemnifying the Licensee for all costs incurred as a consequence of the implementation.

10. SERVICE STANDARDS AND QUALITY OF SERVICE

10.1 The Licensee shall ensure that its network shall conform to GSM MoU, ETSI and CDMA specifications and standards (Schedule 3) as have been specified by MACRA and such Regulations as are applicable to all public fixed and mobile telecommunication networks in the Republic of Malawi, and will be designed and maintained to provide a grade of service no worse than two percent (2%) lost calls in the busy hour. Provided that in the provision of fixed voice telephony services, the Licensee shall comply with such quality of service specifications and standards as set out in Schedule 4 hereto and as may be amended from time to time.

10.2 The Licensee shall make all reasonable endeavours to comply with the recommendations of the ITU associated organisations as they apply to the Republic of Malawi.

10.3 The Licensee shall adhere to the following Service standards—

(a) the provision of a system designed and maintained to provide the Services continuously twenty four (24) hours a day throughout the year;

(b) the rectification of all failures and restoration of service within the shortest practicable time;

(c) the use of its best endeavours to minimise down-time for essential maintenance and network development;

(d) such service standards as set out in Schedule 3 and 4 hereto and as may be set out in any Regulations made under the Act.

10.4 Where there is the possibility of radio interference crossing over international borders, the Licensee shall provide support to MACRA in negotiations with the affected country.

10.5 The Licensee shall maintain and, upon request, provide to the Authority quarterly records of the quality of

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service (Schedule 3 and 4) provided to its Customers. The publication shall cover those aspects of quality of service specified above and others that are agreed with MACRA. From a date to be notified to the Licensee in writing by MACRA, the Licensee shall ensure that these aspects of service quality are maintained at a level commensurate with international standards as prescribed for the Republic of Malawi by MACRA for all public mobile and fixed radio networks.

10.6 Failure by the Licensee to comply with the rollout targets or quality of service parameters set out in Schedule 1, 3 or 4 of this Licence shall attract penalties set out in Tables S1.2 of Schedule 1, Table S3.2 of Schedule 3 and Table S4.2 of Schedule 4, respectively which shall be paid within three months from the date of imposition.

10.7 The Authority shall provide incentives to the Licensee in the event of the Licensee surpassing the quality of service benchmarks and parameters set out in Schedule 3 and 4 during any of the period or phases within the first four years from the Effective Date. Such incentives may include a review of the network roll-out targets or penalties.

10.8 Subject to Clause 10.7 hereof, and subject to the Licensee surpassing its roll-out targets set out in Schedule 1, the Authority shall revise the amount of levy payable during any of the period or phases within the first four years from the Effective Date, provided that such review shall not affect the Licensee’s obligation to pay the levy set forth from the fifth year of the Effective Date and thereafter as set out in Clause 29 of this Licence.

11. INTERNATIONAL TELECOMMUNICATION SERVICES

11.1 The Licensee shall comply with the obligatory conditions of applicable international agreements which have been ratified by the Government of Malawi.

11.2 The Licensee shall have the status of a Recognized Operating Agency within the meaning of the International Telecommunication Union Convention.

11.3 The Licensee may negotiate and conclude commercial and operating agreements with any Authorised Foreign Operator, subject to any Code of Practice as may be published by MACRA.

11.4 The Licensee shall not enter into any agreement with an Authorised Foreign Operator which unfairly precludes or restricts the provision of international services by another operator or service provider. Provided that MACRA shall ensure that all Telecommunications Operator shall equally comply with this requirement.

11.5 Where it acts as signatory to an international agreement the Licensee shall provide access to the facilities and services governed by that agreement to other operators licensed to provide international services on a non-discriminatory basis. Provided that all such agreements entered into by other Telecommunications Operator shall be made available to MACRA, and shall further ensure that this provision equally applies to all other Telecommunications Operator.

11.6 Where any international organisation to which a Telecommunication operator in the Republic of Malawi wishes to belong requires that there should be a single signatory per country the Licensee may be that signatory upon liaising with other interested Telecommunications Operator. Provided that MACRA shall ensure that any single signatory and or Telecommunications Operator representing Malawi shall protect and promote the interests of all Telecommunications Operators in Malawi.

11.7 The Licensee shall provide other Telecommunications Operators with the International Connection Services that they reasonably require on a non-discriminatory and reciprocal basis within thirty (30) days of receipt of a request for such a service.

11.8 The Licensee shall consult from time to time with MACRA and with other International Gateway Operators in respect of international connection accounting arrangements.

11.9 The Licensee shall comply with any Regulations issued by the Authority on traffic routing, accounting rates and settlement procedures for international Voice Telephony Services.

11.10 The Licensee may apply for an International Connection Service Licence from the Authority for the provision of international connection services or it may lease capacity from other licensed Telecommunication Operators.

12. INTERCONNECTION

12.1 The Licensee shall enter into an interconnection agreement with any licensed Telecommunication Operator. The interconnection agreement shall, as a minimum, provide the following—

(a) The connection of the Licensee’s network to any other licensed operator’s switched voice telephone network and vice versa in accordance with Section 26 of the Act;

(b) The handing over of messages in either direction between the Licensee and the other licensed Telecommunication Operator;

(c) The use of Leased Lines; and

(d) The provision of related services requested by the Licensee including but not limited to Emergency Service obligations and Directory Services.

12.2 If the interconnection agreement with a licensed Telecommunications Operator is not concluded within three months, the provisions of clauses 12.8 will come into immediate effect as if a written request for interconnection has been made on the Effective Date.

12.3 The terms and conditions of any interconnection agreement entered into by the Licensee shall—
(a) be in accordance with the terms and conditions of this Licence;
(b) comply with any regulations made under the Act;
(c) not discriminate any other person authorised to provide fixed and public mobile radio telephony services;
(d) conform with the standards referred to in clause 10 of this Licence;
(e) not cause harm to any public telecommunication network; and
(f) not discriminate based on technology used, type of carriers being connected, or the services to be provided, unless there are technical factors requiring different standards.

12.4 The Licensee shall enter into an interconnection agreement with any other Telecommunication Operator, provided that the agreements for interconnection do not adversely affect the rights and obligations of any other Telecommunication Operators or its customers including such customers' right to privacy and to confidentiality of any communications.

12.5 The licensee shall ensure that quality of service offered to the telecommunications services users are not degraded as a result of any of its interconnection arrangements. To this end, the arrangements for interconnection between the Licensee's network and other networks shall include—

(a) regular exchange of technical information and network management data relevant to the operation and maintenance of the Licensee’s and other public telecommunication networks, including call routing, call failure rates and scheduled maintenance;
(b) practical arrangements for communication with an Emergency Service; and
(c) future requirements for interconnection are facilitated in accordance with the conditions of this Licence and in consultation with licensees within three months of a notice of such requirements being given.

12.6 An Interconnection agreement made under the terms of this Licence shall, as a minimum, provide for the following—

(a) the types of service to be offered;
(b) the method to establish and maintain the connection to the Licensee's network and vice versa;
(c) the points of Interconnection of the networks;
(d) the capacity required to ensure a reasonable grade of service;
(e) that any traffic is received with a specifically defined minimum quality;
(f) the billing and collection arrangement between the parties for signals transmitted to third parties by virtue of interconnection, within or outside of Malawi;
(g) that the Licensee shall provide Interconnection services to the requesting Telecommunication Operator on the basis of the relevant forward looking long run incremental costs to be directly incurred by the Licensee as a result of the Interconnection.

12.7 The Licensee shall submit proposed terms and conditions of any interconnection agreement to MACRA for approval, which approval shall not be unreasonably withheld or delayed for more than thirty days.

12.8 Should the Licensee be unable to conclude an interconnection agreement with any Telecommunication Operator within three months from the written request for interconnection then it may submit such agreement for determination to MACRA. A copy of the other Operator. In making its determination, MACRA shall consider such factors that it considers necessary including terms and conditions that are—

(a) consistent with the objectives of national telecommunications policy;
(b) not less favourable than those for any similarly licensed operator providing public telecommunication services in the Republic of Malawi; and
(c) on commercial terms.

12.9 When requested to make a determination under clause 12.8, MACRA shall determine the terms and conditions of interconnection within thirty days of receipt of the written request from the Licensee.

12.10 Any network interconnection agreement reached pursuant to this clause shall be filed with MACRA within thirty days after its conclusion and may be open to inspection by the public upon written request to MACRA.

12.11 The Licensee may at any time, make a written request to MACRA to review any term(s) of the interconnection agreement. Where such request has been made, the Licensee shall supply the other party copies of the request

12.12 The Licensee may refuse access to any land, building or structure in relation to the operation of its network or the provision of any of the Services if it is technically or economically not feasible and MACRA shall verify the reasons for such refusal.

13. NETWORK ACCESS BY SERVICE PROVIDERS

13.1 The Licensee shall allow Service Providers to access its public telecommunication networks or infrastructure on a non-discriminatory basis by means of the connection offered to all users in accordance with access arrangements specified in this clause.

13.2 The Licensee shall not impose restrictions on usage of the services acquired by the service provider from the licensee under the network access agreement.

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13.3 The Licensee shall offer any of its telecommunication services or infrastructure to any service provider at wholesale rates.

13.4 The Licensee shall notify MACRA of any Network Access Agreement it has entered into and lodge a copy of the agreement with MACRA.

13.5 When requested to make a determination or to resolve a dispute under this clause, MACRA shall make such determination or resolution within sixty (60) days of receipt of the written request.

14. NUMBERING

14.1 MACRA shall, within thirty (30) days of being so requested to do so by the licensee, assign to the Licensee a block of contiguous numbers to enable the Licensee comply with its roll out obligations under this Licence.

14.2 MACRA shall assign to the Licensee additional blocks of contiguous numbers in accordance with the Republic of Malawi National Numbering Plan in sufficient time to enable the Licensee as required to meet the demand for its Services.

14.3 The Licensee shall have the right to make individual number assignments to its Customers at its sole discretion.

14.4 The Licensee and MACRA shall from time to time have consultations in respect to—

(a) the arrangements for the allocation and re-allocation of Numbers within the National Numbering Plan, as may be amended from time to time and including any developments of, additions to, or replacements of the National Numbering Plan.

(b) the public announcements, by MACRA, regarding newly assigned block numbers for the Licensee.

(c) Number portability.

15. DIRECTORY SERVICES

15.1 The Licensee shall make arrangements to provide directory services for its fixed network comprising directory enquiries and the inclusion of its Customers in printed or electronically published directories to its Customers in return for a fee or for free.

15.2 The Licensee shall co-operate with other directory service providers to give effect to its obligations to include its Customers in directory information services.

15.3 Listings in these commercial telephone directories shall be optional. Provided that the Licensee shall have records of all its fixed voice telephony services customers in its data base and shall keep such information confidential.

15.4 The Licensee shall correct its internal records for purposes of providing directory services where a mistake in the customer information is brought to its attention and shall correct such information as applicable in the next general publication of the directory, or if it is an electronic directory, immediately thereafter.

16. FAIR TRADING

16.1 The Licensee shall not, whether acting alone or in concert with others, use its dominant position in the provision of any public telecommunication service to gain an advantage which impedes, limits, restricts or distorts fair competition among companies engaged in telecommunication activities in Malawi.

16.2 In the provision of the Services, the Licensee shall not discriminate against or show any preference to any other Telecommunication Operator or Service Provider. It shall provide telecommunication services to Service Providers that are equal in quality, subject to the same conditions and provided within the same provisioning time intervals that the licensee provides the services to others including its end users.

16.3 Otherwise than as expressly provided for in this Licence, the Licensee shall not prohibit, prevent or frustrate the provision of a telecommunication service, or the supply of telecommunication equipment, by any person lawfully able to provide such a service or supply such equipment.

16.4 The Licensee shall not make it a condition of providing any telecommunication service or supplying any item of telecommunication equipment that the Customer should also acquire from the Licensee any other service or item of equipment.

16.5 The Licensee shall not enter into any contract with, merge with or acquire any other party with the intention or effect of preventing, restricting or distorting competition in the provision of telecommunication services.

16.6 MACRA shall ensure that all license terms and conditions including applicable fees and levies for the provision of telecommunication services in Malawi do not place the Licensee at a commercial disadvantage.

16.7 The Licensee shall comply with any Regulation which relates to fair trading or competitive behaviour.

17. CUSTOMER SERVICES CONTRACT

17.1 The Licensee shall provide the Services authorized under this Licence subject to a Master Customer Contract.

17.2 The Licensee shall submit to MACRA a Master Customer Contract containing the standard terms and conditions thereto for the provision of the Services including any forms and any amendments thereto for approval.

17.3 The Licensee shall ensure that a customer contract specifies the type of service offered and terms and conditions on which the service is to be provided under the contract or shall make reference to publicly available terms and conditions of the Master Customer Contract.

17.4 The Licensee shall ensure that the Master Customer Contract specify, if relevant:—
(a) the supply time for initial connection;
(b) the service covered by and the terms of the contract;
(c) the financial penalties the subscribers have to pay in case of payment delay;
(d) the conditions referring to suspension or interruption of the service in case of non-payment by the subscriber;
(e) the compensation or refund arrangements or both for the Licensee’s subscribers which apply if the contracted service is not met and, if none are applicable, a statement to that effect;
(f) a summary of the method of initiating procedures for the settlement of disputes; and
(g) information on service quality levels offered.

17.5 The Licensee shall secure such alteration to the terms and conditions of any such contract, and the conditions of any compensation or refund arrangements or both used by the Licensee, as MACRA may direct.

17.6 The Licensee shall make available to the public any approved form or model of the Master Customer Contract including any amendments by doing the following—
(i) filing a copy with MACRA;
(ii) making copies available during regular business hours at its principal offices and any branch offices open to the public; and
(iii) posting an electronic version on its website.

17.7 MACRA may, after consultation with the Licensee, veto any term or condition of any agreement proposed or entered into by the Licensee which is not in accordance with the terms and conditions of this Licence, which is discriminatory or which does not comply with the Act and any Regulation made thereunder.

17.8 Should the Licensee be unable to conclude an agreement with any customer within thirty (30) days from the day a written request is made, then MACRA may determine terms and conditions that are—
(a) consistent with the objectives of the National Communications Sector Policy statement;
(b) not less favourable than those for any other Telecommunication Operator;
(c) on commercial terms, taking into account the legitimate interests of the parties; and
(d) in accordance with the Act and any Regulations made thereunder.

17.9 The Licensee shall retain each post paid subscriber contract or a copy thereof in its records for at least one year following termination of the respective subscriber’s contract.

17.10 Notwithstanding any other provision of this clause, the Licensee—
(a) may require that a customer supplies a performance guarantee or makes an advance payment as a condition of the provision by the Licensee of any of the Services; or
(b) may require that a customer take such precautions as the Licensee may reasonably require deterring, preventing, detecting or stopping fraudulent use of any of the Services.

17.11 The Licensee may terminate an agreement with any of its customers—
(a) on the expiry of the term of the agreement;
(b) due to a fundamental breach of the agreement that has not been remedied within one month of being notified by the Licensee to the customer; or
(c) if the customer fails to pay the Licensee’s charges for any of the Services within the period specified in their agreement.

18. SETTLING DISPUTES WITH CUSTOMERS

18.1 The Licensee shall institute and maintain a procedure for dealing with disputes with Customers. The procedure shall be agreed and lodged with MACRA and published.

18.2 The Licensee shall include in the standard terms and conditions on which it provides the Services an arrangement for its Customers to have the opportunity to refer to mediation, conciliation or reconciliation instead of a court of law any dispute which does not involve a complicated issue of law or a sum greater than the amount which MACRA shall determine from time to time.

19. TARIFF

19.1 The Licensee shall not bring into operation any Services without prior notification to MACRA of its proposed charges for the services.

19.2 (a) The Licensee shall make publicly available Tariff setting out the charges for each Service that it provides.
(b) The Licensee shall not charge its Customers any charges other than those specified in the Tariff, and at no rates higher than those specified in the Tariff.

19.3 The Licensee shall ensure that any changes to the Tariff for the provision of its Service conforms to Tariff Regulations issued by MACRA and shall not affect any such change without prior notification to MACRA.

19.4 Where MACRA is satisfied that it has reasonable grounds to believe that the Licensee is, alone or in concert with others, engaged in anti-competitive practices to the disadvantage of users of the Services contrary to the Act and

Public Telecommunication Services Licence for CELCOM Limited
any applicable law, MACRA may refer the Licensee to the Competition and Fair Trading Commission established under the Competition and Fair Trading Act or determine the issue at hand in accordance with section 25 of the Act.

19.5 The Licensee shall keep such billing records as may be necessary or as may be determined by MACRA provided that nothing in this clause shall require the Licensee to retain any records for more than two (2) years from the date in which they came into being.

20. PUBLICATION OF TARIFFS

20.1 The Licensee shall publish, in the manner described in clause 19.2, a notice specifying the charges, tariffs or the method to be adopted for determining the charges or tariff and other terms and conditions of service.

20.2 The Licensee shall issue a notice under clause 20.1 for any of the following—
   (a) for any of the Services;
   (b) for the connection, access or co-location of any Terminal Equipment to the Public Telephone Network where the Licensee's consent to that connection is required;
   (c) for the terms of maintenance, adjustment or repair of apparatus forming part of the Public Telephone Network or any Terminal Equipment, in accordance with any obligation of the Licensee to provide that service under this Licence;

Notwithstanding the above provision, the Licensee may not publish a notice under this Clause in respect of the terms and conditions of Interconnection agreement entered into by the Licensee under clause 12, or as MACRA may otherwise agree.

20.3 Publication of the tariff details referred to in clause 19.1 shall be made by—
   (a) sending a copy of the details to MACRA;
   (b) as soon as practicable after sending the details to MACRA, placing the details in every registered office and website of the Licensee so that it is available for inspection, free of charge, by members of the public.

20.4 The Licensee shall publish any increases in tariffs in at least two local daily newspapers within seven (7) days of their coming into operation.

21. BILLING ARRANGEMENTS

21.1 (a) The Licensee shall provide a bill to each post paid customer, in a form that complies with clause 20.1, for the services rendered during any period determined by the Licensee.
   (c) The Licensee shall establish appropriate processes and procedures to ensure that customer bills are accurate and the amount due (after deducting any credits, discounts or similar adjustments) is no higher than an amount which represents the true extent of the services actually provided by the Licensee to the customer in question.

21.2 Without prejudice to the generality of clause 21.1, the Licensee shall at all times maintain in operation such a Billing Process as facilitates compliance by the Licensee with, and is calculated to prevent contravention of clause 21.1. The Licensee may at its discretion source its billing obligations; provided that it shall remain primarily responsible for meeting its obligations under this Licence.

21.3 The Licensee shall not be regarded as being in contravention of its obligation under clause 21.1 except where the failure is in relation to the billing process and the Licensee has failed to take all reasonable steps to prevent a contravention of that obligation.

21.4 The Licensee shall keep such records as may be necessary or as may be determined by MACRA to be necessary for the purpose of satisfying characteristics required by clause 21.2 above, provided that nothing in this clause shall require the Licensee to retain any records for more than two (2) years from the date on which they came into being.

21.5 MACRA shall have the right to inspect and independently verify the Licensee's billing process for purposes of ensuring compliance with the Licensee's obligations under this clause. Where MACRA provides written notice to the Licensee that it is exercising its right under this clause, the Licensee shall cooperate with MACRA by making available, for a reasonable period, appropriate personnel with knowledge of the billing process and provide full back up and support documentation and other information that MACRA may request and otherwise assisting MACRA in the process.

22. ITEMIZED BILLS

22.1 The Licensee shall provide at a nominal cost each post paid customer who so requests an itemised bill in such a form and with appropriate explanation to plainly show the call details of the customer for the billing period to verify the billed amount

22.2 In any case where MACRA promulgates regulations or otherwise publishes basic principles of itemized billing for all Telecommunication Operator, the Licensee's compliance with such regulations or principles shall satisfy its obligations under this clause.

22.3 The Licensee shall ensure that calls which are free of charge to its Customers, including calls to emergency lines, shall be identified in its Customers' itemised bills.

22.4 The Licensee may make an itemised bill available in a secure location on its website if so requested by a customer.
23. CONFIDENTIALITY

23.1 The Licensee shall not monitor or disclose the contents of any communication conveyed as part of its mobile or fixed telecommunications network to third parties except—

(a) to the extent necessary for the purpose of maintaining or repairing any part of the network used to provide the service or monitoring the Licensee’s quality of service;
(b) where requested to do so by a person authorized by law or by an order of court;
(c) if so requested by a competent authority for the maintenance of national security.

23.2 The Licensee shall take all reasonable steps to prevent information, other than directory information, about its Customers from being disclosed to third parties, except information which is required—

(a) for the effective operation of an Interconnection agreement duly entered into by the Licensee under clause 12 of this Licence;
(b) in the process of collection of debts owed to the Licensee;
(c) by the Licensee’s auditors for the purpose of auditing the Licensee’s accounts;
(d) by the Licensee’s attorneys in connection with any potential, threatened or actual litigation;
(e) for the purposes of compiling, verifying or auditing any reports required under this Licence or any other telecommunication Licence applicable to the Licensee under the Act.
(f) pursuant to a valid court order; or
(g) by a competent authority for the maintenance of demonstrable national security.

24. ACCOUNTING REQUIREMENTS

24.1 The Licensee shall, within three (3) months of the end of each financial year either—

(a) provide MACRA with annual accounts relating to that financial year audited in a manner consistent with internationally recognised accounting standards; or
(b) provide MACRA with a written statement of the reasons the audited accounts cannot be provided within that period and agree with MACRA a date for their provision, which date shall not be more than six months after the end of the financial year to which the accounts relate.

24.2 The Licensee shall establish and maintain management accounts that enable the annual operating revenues and costs of provision of Voice Telephony Services to be separately identified.

25. Provision and Collection of Information

25.1 The Licensee shall establish and maintain adequate records to permit the effective supervision and enforcement by MACRA of the Licensee’s obligations under this Licence.

25.2 The Licensee shall furnish to MACRA such documents, accounts, estimates, reports, returns or other information that may reasonably be required for the purpose of monitoring and enforcing compliance by the Licensee of its obligations under this Licence. The documentation must be supplied in such manner and at such times as MACRA may request in writing.

25.3 MACRA shall have the right to inspect, and if necessary to make copies of the files, records, accounts or other data and equipment of the Licensee for the purpose of enabling MACRA to monitor and enforce compliance by the Licensee of its obligations under this Licence.

25.4 In requesting any information or documents from the Licensee under this clause MACRA shall ensure that any information furnished to it by the Licensee is kept confidential subject to this Licence and any applicable law.

25.5 The Licensee shall bear the cost of any expenses it incurs in ensuring compliance with record keeping and provision of information.

26. Validity, Effective Term, and Renewal

26.1 This Licence shall come into force on the Effective Date and shall remain valid for a period of fifteen (15) years from that date ("the Effective Term") unless revoked in terms of the provisions herein;

26.2 This Licence may be renewed at MACRA’s absolute discretion for such number of years as may be agreed between the Licensee and MACRA at the expiry of its term.

26.3 Application for renewal shall be made in writing no later than twelve (12) calendar months before the expiration of the term of the Licence.

26.4 The fee payable in respect of any renewal of the Licence shall be agreed upon between MACRA and the Licensee.

27. Revocation of Licence

27.1 MACRA may revoke the licence on any of the following grounds—

(a) if the Licensee is in substantial breach of any of the terms and conditions of this licence including—

(i) failure to achieve the Network Roll Out Targets;
(ii) failure to achieve the Quality of Service Standards under clause 10;
(iii) failure to provide a performance guarantee under clause 31; or
(iv) failure to pay outstanding License fees for over a period of 12 months from the Effective Date or anniversary of the Effective Date.

(b) if the Licensee has been declared insolvent;

(c) if the Licensee agrees in writing to cancel the Licence.

27.2 Before taking any action to revoke this Licence, MACRA shall follow the procedure set out below—

(a) MACRA shall notify the Licensee of the breach in writing;

(b) MACRA shall allow the Licensee not less than twenty eight (28) days from the date of notification in accordance with clause 27.2 (a) to remedy the breach; provided, however, that the Licensee may request additional time, not exceeding twenty eight (28) days, to remedy the breach and such request shall not be unreasonably denied by MACRA.

(c) Having taken into account the nature, gravity and consequences of the breach, MACRA may take any action that it considers appropriate including revoking the Licence.

27.3 All fees, levies or penalties due on the date of the revocation shall be payable to MACRA within ninety (90) days from the date of revocation.

28. TRANSFER OF OWNERSHIP

28.1 The Licensee shall seek approval from MACRA before effecting any change in its shareholding structure and, to this effect, shall notify MACRA at least thirty (30) days in advance of transfer of shares which would result in a change of shareholding of more than five percent (5%) of the issued voting share capital of the Licensee.

28.2 The Licensee shall, during the term of this Licence, maintain at least fifteen (15) percent shareholding by local indigenous Malawians in the Licensee, unless otherwise approved by MACRA.

28.3 This Licence may be revoked in accordance with the procedures herein where the Licensee effects change of shareholding contrary to clauses 28.1 and 28.2 hereof.

28.4 The Licensee shall submit to MACRA the names of the initial shareholders of the Licensee and any change thereto.

29. LICENCE FEES

29.1 The Licence fees payable by the Licensee to MACRA shall be as follows—

(a) The basic Licence fee is One Hundred Thousand US dollars (USD 100,000.00) payable in advance on or before the Effective Date and on or before each anniversary of the Effective Date.

(b) An annual levy equal to two percent (2%) in the first (1st) and second (2nd) years, three percent (3%) in the third (3rd) year, four percent (4%) in the fourth (4th) year and five percent (5%) thereafter of the Net Operating Revenue payable in advance in four equal quarterly instalments. Calculation of the first three quarterly instalments shall be based upon the budget for the financial year. A final quarterly payment shall be made based on Net Operating Revenue within thirty days of issue of the audited accounts. Adjustments shall be made for the first three (3) quarterly payments if the Net Operative Revenue in the budget differs from the one in the audited accounts.

(c) Radio licence fees as set out in Schedule 2.

29.2 All outstanding Licence and radio licence fees shall be payable within 3 months from their due dates, failing which they shall attract a 5% annual interest until full liquidation thereof. If in any Licence year fees remain outstanding for a period of 12 months from the due date the Licence may be revoked by MACRA in accordance with clause 27 of this licence.

30. NETWORK ROLL-OUT

30.1 The Licensee shall roll out and commence provision of its fixed or mobile voice telephony services to the general public in the Coverage Area set out in Phase One of Schedule 1 within eighteen (18) months from the Effective Date failing which this Licence may be revoked in accordance with clause 27 hereof.

30.2 The Licensee shall meet or exceed the network roll out targets as set out in Schedule 1 and within the period set out therein unless otherwise agreed to between MACRA and the Licensee. The Licensee shall maintain the roll out targets as specified in Schedule 1 and thereafter shall establish roll out targets applicable in each year after Phase 4 (as defined in Table S1.1) in consultation with MACRA.

30.3 If the Licensee fails to achieve a Network Roll out Target in respect of any period specified in Table S1.1 of Schedule 1, the Licensee shall be liable to pay a penalty not exceeding the amounts specified in Table S1.2 of the said Schedule. Provided that before imposing such penalties MACRA shall give the Licensee notice of the breach, the opportunity to present just and valid reasons thereof and an opportunity to remedy such breach. Provided further that if the failure is deemed by MACRA to have occurred despite the Licensee’s best endeavours due to circumstances or conditions beyond the Licensees control, then no penalties may be imposed.
30.4 The Licensee shall submit to MACRA not later than thirty (30) days after the end of its financial year a report of its performance in relation to the network roll out targets in the preceding financial year.

30.5 The Licensee shall submit to MACRA an implementation plan for its services within sixty (60) days from the Effective Date.

30.6 MACRA shall be entitled to regularly review compliance by the Licensee with the Licence obligations. In performing a review or any other regulatory duties MACRA shall be entitled to request further information from the Licensee, review documents, and perform other such duties as authorized by the Act.

31. PERFORMANCE GUARANTEE BOND

31.1 The Licensee shall provide a performance guarantee in a form of a bond acceptable to MACRA in the amount of One hundred thousand United States Dollars (US$100,000) to secure the performance of the Licensee's obligations contained in this Licence. The said form shall substantially be in the form as set out in Table S5.1 of Schedule 5.

31.2 The Licensee shall ensure that the guarantee is issued within thirty (30) days from the Effective Date. The Licensee shall renew the guarantee annually within twenty eight (28) days of the date of its expiry.

31.3 Failure to furnish the performance guarantee under this clause shall be deemed a substantial breach of this Licence. The Authority may invoke its revocation powers under this licence for any failure to furnish the performance guarantee.

31.4 In the event of the Authority imposing a penalty upon the Licensee for any breach of the Licence conditions, the Authority shall, without prejudice to any of its rights or remedies under the Licence or the Act, have the right to draw upon the performance guarantee to partly or fully satisfy the penalty so imposed upon giving seven (7) calendar days notice to the Licensee, together with reasons for so doing. Provided that the Authority may have further recourse to any other resources of the Licensee in cases where the guarantee is inadequate to satisfy the penalty.

32. FORCE MAJEURE

32.1 Any failure by the Licensee to comply with any obligation, term or condition of the Licence shall be excused to the extent that it is caused by an event beyond the control of the Licensee, including but not limited to acts of God, wars, insurrections and/or any other cause beyond the reasonable control of the Licensee.

32.2 The Licensee shall use reasonable endeavours to minimise the impact on its operations of any event of this nature and to remedy, if possible, the failure or make good the delay.

32.3 The Licensee shall keep MACRA informed of any problems which may be encountered, any consequences on its operations and the steps it is taking to address them.

33. DISASTER RECOVERY PLAN

33.1 The Licensee shall prepare a disaster recovery plan subject to approval by MACRA, setting out the priorities and procedures it will apply in the event of a disaster or national emergency.

33.2 The Licensee shall ensure that MACRA is in possession of the current version of the disaster recovery plan and shall update the plan when requested by MACRA.

33.3 The Licensee shall ensure that it has adequate contingency plans to ensure that in the event of an emergency or disaster, its services shall be rectified within reasonable time.

34. AMENDMENT OF LICENCE

34.1 The provisions of this Licence may be amended at any time by agreement between MACRA and the Licensee.

34.2 MACRA may amend the provisions of this Licence as necessary and in the public interest, provided that the amendment does not place the Licensee at a commercial disadvantage.

34.3 Before any amendment of the provisions of this Licence comes into effect, MACRA shall publish a notice in the Gazette stating the amendment that it proposes to make and the reasons for it, and shall give any Licensee an opportunity to make representations concerning the proposed amendment.

34.4 MACRA shall give due consideration to any representation regarding any proposed amendment of this Licence made to it by the Licensee.

35. ARBITRATION

35.1 Any dispute controversy or claim arising out of, relating to or in connection with this Licence, including any question regarding its existence, validity or termination, shall, if not resolved amicably, be resolved by arbitration in accordance with the Arbitration Act. The seat of arbitration shall be Blantyre, Malawi.

36. NOTICES

36.1 Any notice required or permitted under the terms and conditions of this Licence shall be in writing in the English language and shall be sufficiently served if delivered by hand or sent by registered mail as follows:

Public Telecommunication Services Licence for CELCOM Limited
(a) in the case of MACRA, to:
The Director General,
MACRA,
Private Bag 261, Blantyre
Malawi

(b) in the case of the Licensee, to:
The Chief Executive Officer
CELCOM LIMITED
P.O. Box 5494
Limbe.
Malawi

36.2 Any notice under clause 36.1 shall be deemed, in the absence of proof to the contrary, to have been given and received at the time of delivery.

36.3 For purposes of licence reviews and monitoring, the Licencee shall be at liberty to designate a specific person as a focal point for contact. However, any formal communication shall be addressed to the addresses referred to in Clause 36.1.

37. **APPLICABLE LAW**

37.1 This Licence and its performance shall be governed and construed in accordance with the Laws of Malawi.
### SCHEDULE 1

<table>
<thead>
<tr>
<th>PHASE</th>
<th>Implementation Target</th>
<th>Community Service Phones</th>
</tr>
</thead>
<tbody>
<tr>
<td>ONE</td>
<td><strong>Coverage Area</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>City of Blantyre, Lilongwe, Mzuzu and Zomba from the respective City Centers up to City Boundaries and the districts of Mulanje, Thyolo, Phalombe, Kasungu, Mchinji, Salima. Coverage area in the districts shall mean 15 kms from the centre of the district covering a minimum of three trading centers of that particular district.</td>
<td>150</td>
</tr>
<tr>
<td>TWO</td>
<td><strong>Coverage Area</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>District centres of:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thyolo, Chikhwawa, Balaka, Mwanza, Mangochi, Ntcheu, Dedza, Rumphi, Karonga, Mzimba and the following areas, Nchalo, Makwasa, Chitakale, Luchenza, Namadzi, Liwonde, Ntaja, Ulongwe, Nkopola, Monkey Bay, Kamphata, Nathenje, Mvera. Coverage area shall mean 15kms from the centre of the town or district covering a minimum of three trading centers of that particular district or town.</td>
<td>150</td>
</tr>
<tr>
<td>THREE</td>
<td><strong>Coverage Area</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>District centres of:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nsanje, Chiradzulu, Machinga, Nkhota-kota, Dowa, Ntchisi, Chitipa, Nkhata-Bay and the following areas: Ngabu, Muloza, Chimwala, Makanjila, Zalewa/Mwanza T/A, Manjawila, Lizulu, Limhipe, Namitete, Mponela, Dwangwa, Chintheche, Vizara, Likoma Island, Mzokoto, Livingstonia, Chiweta, Nyungwe Coverage area under this phase shall mean 15kms from the centre of the town or district covering a minimum of three trading centers of that particular district or town.</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>A minimum of 10 Km either side of the M1, M2, M3,M5 M12 trunk roads</td>
<td>600</td>
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</table>

<table>
<thead>
<tr>
<th>Roll Out Target</th>
<th>Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage area</td>
<td>USD100,000 for each coverage area missed in any year</td>
</tr>
<tr>
<td>Public Pay Phones</td>
<td>USD 1500 for each public pay phone for which target is missed in any year.</td>
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</tbody>
</table>
### SCHEDULE 2

**ANNUAL RADIO LICENCE FEES**

The annual fees for each type of radio frequency used by the Licensee as from the Effective Date shall be as set out in table below. The fees payable will be revised in accordance with any new schedule of radio Licence fees the Authority may publish under section 36 of the Act.

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Type of Radio Licence</th>
<th>Basis of Assignment</th>
<th>Assignment Fee USD</th>
<th>Annual Fee USD</th>
<th>Amendment Fee</th>
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<tbody>
<tr>
<td>1</td>
<td>HF Voice Data</td>
<td>Frequency</td>
<td>534</td>
<td>267</td>
<td>133</td>
</tr>
<tr>
<td>2</td>
<td>SW Sound Broadcasting</td>
<td>Radio Station</td>
<td>534</td>
<td>267</td>
<td>133</td>
</tr>
<tr>
<td>3</td>
<td>MW Sound Broadcasting</td>
<td>Radio Station</td>
<td>534</td>
<td>267</td>
<td>133</td>
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<tr>
<td>4</td>
<td>VHF/UHF PMR Fixed Station</td>
<td>Radio Station</td>
<td>356</td>
<td>178</td>
<td>89</td>
</tr>
<tr>
<td>5</td>
<td>VHF/UHF Centralised Radio Alarm System</td>
<td>System</td>
<td>534</td>
<td>267</td>
<td>133</td>
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<tr>
<td>6</td>
<td>VHF/UHF PMR Vehicle Mobile Station</td>
<td>Radio Station</td>
<td>178</td>
<td>89</td>
<td>44</td>
</tr>
<tr>
<td>7</td>
<td>VHF/UHF PMR Handheld</td>
<td>Radio Station</td>
<td>89</td>
<td>44</td>
<td>22</td>
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<tr>
<td>8</td>
<td>VHF/UHF Private Trunking System</td>
<td>Radio Station</td>
<td>178</td>
<td>89</td>
<td>44</td>
</tr>
<tr>
<td>9</td>
<td>UHF PAMR Trunking Network</td>
<td>Frequency</td>
<td>890</td>
<td>890</td>
<td>222</td>
</tr>
<tr>
<td>10</td>
<td>VHF/UHF Radiotelephone link</td>
<td>Frequency</td>
<td>890</td>
<td>445</td>
<td>222</td>
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<tr>
<td>11</td>
<td>FM Sound Broadcasting, Mono</td>
<td>Radio Station</td>
<td>356</td>
<td>178</td>
<td>89</td>
</tr>
<tr>
<td>12</td>
<td>FM Sound Broadcasting, Stereo</td>
<td>Radio Station</td>
<td>712</td>
<td>712</td>
<td>178</td>
</tr>
<tr>
<td>13</td>
<td>Public Paging</td>
<td>Frequency</td>
<td>356</td>
<td>178</td>
<td>89</td>
</tr>
<tr>
<td>14</td>
<td>Private Paging</td>
<td>Radio Station</td>
<td>178</td>
<td>89</td>
<td>44</td>
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<tr>
<td>15</td>
<td>VHF/UHF Television</td>
<td>Radio Station</td>
<td>1780</td>
<td>890</td>
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<tr>
<td>16</td>
<td>Cellular Mobile Radio 200 kHz</td>
<td>Channel</td>
<td>4000</td>
<td>4000</td>
<td>445</td>
</tr>
<tr>
<td>17</td>
<td>Amateur</td>
<td>Radio Station</td>
<td>41</td>
<td>20</td>
<td>15</td>
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<tr>
<td>18</td>
<td>Microwave Radio Link Transmitter</td>
<td>Frequency</td>
<td>356</td>
<td>356</td>
<td>89</td>
</tr>
<tr>
<td>19</td>
<td>Wireless Local Loop 25 kHz</td>
<td>Channel</td>
<td>534</td>
<td>534</td>
<td>133</td>
</tr>
<tr>
<td>20</td>
<td>Spread Spectrum</td>
<td>System</td>
<td>356</td>
<td>178</td>
<td>89</td>
</tr>
<tr>
<td>21</td>
<td>Aeronautical HF</td>
<td>Radio Station</td>
<td>534</td>
<td>534</td>
<td>133</td>
</tr>
<tr>
<td>22</td>
<td>Aeronautical VHF/UHF</td>
<td>Radio Station</td>
<td>178</td>
<td>89</td>
<td>44</td>
</tr>
<tr>
<td>23</td>
<td>Maritime</td>
<td>Radio Station</td>
<td>178</td>
<td>89</td>
<td>44</td>
</tr>
<tr>
<td>24</td>
<td>Cordless Telephone</td>
<td>Radio Station</td>
<td>41</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>25</td>
<td>Citizen Band</td>
<td>Radio Station</td>
<td>41</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>26</td>
<td>VSAT</td>
<td>Radio Station</td>
<td>5000</td>
<td>5000</td>
<td>200</td>
</tr>
<tr>
<td>27</td>
<td>VSAT (SOHO)</td>
<td>Radio Station</td>
<td>500</td>
<td>250</td>
<td>20</td>
</tr>
<tr>
<td>28</td>
<td>ISP spectrum (1 MHz)</td>
<td>Frequency</td>
<td>1000</td>
<td>500</td>
<td>100</td>
</tr>
<tr>
<td>29</td>
<td>IMT 2000, 5MHz</td>
<td>Frequency</td>
<td>250,000</td>
<td>250,000</td>
<td>500</td>
</tr>
</tbody>
</table>

/Public Telecommunication Services Licence for CELCOM Limited/
### SCHEDULE 3

<table>
<thead>
<tr>
<th>Table S3.1</th>
<th>QUALITY OF SERVICE PARAMETERS FOR THE PROVISION OF MOBILE VOICE TELEPHONY SERVICES</th>
</tr>
</thead>
</table>

1. 2G NETWORK

1.1 BSS URBAN (BLANTYRE, LILONGWE, MZUZU, ZOMBA AND MANGOCHI DISTRICTS)

<table>
<thead>
<tr>
<th>#</th>
<th>PARAMETER</th>
<th>BENCHMARKS</th>
<th>ASSESSMENT PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>CSSR (within licensees own network)</td>
<td>&gt;98%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(b)</td>
<td>Call Drop Rate (CDR)</td>
<td>&lt;2%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(c)</td>
<td>TCH congestion (with &amp; without handover)</td>
<td>&lt;2%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(d)</td>
<td>SDCCH congestion</td>
<td>&lt;0.5%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(e)</td>
<td>GPRS PDP context activation success rate</td>
<td>&gt;90%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(f)</td>
<td>Radio availability</td>
<td>&gt;99.8%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(g)</td>
<td>Percentage of connections with good voice quality</td>
<td>&gt;95%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(h)</td>
<td>Service Access Delay</td>
<td>Between 9 to 20 seconds depending upon the number of paging attempts (Average of 100 calls &lt;15 sec)</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(i)</td>
<td>Handover Success Rate</td>
<td>&gt;90%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(j)</td>
<td>Actual Percentage of total cells to be benchmarked against all above parameters</td>
<td>98% of the total urban cells</td>
<td>Every 3 Months</td>
</tr>
</tbody>
</table>

1.2 BSS RURAL (REST OF THE DISTRICTS)

<table>
<thead>
<tr>
<th>#</th>
<th>PARAMETER</th>
<th>BENCHMARKS</th>
<th>ASSESSMENT PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>CSSR (within licensees own network)</td>
<td>&gt;98%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(b)</td>
<td>Call Drop Rate (CDR)</td>
<td>&lt;3%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(c)</td>
<td>TCH congestion (with &amp; without handover)</td>
<td>&lt;3%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(d)</td>
<td>SDCCH congestion</td>
<td>&lt;0.5%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(e)</td>
<td>GPRS PDP context activation success rate</td>
<td>&gt;90%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(f)</td>
<td>Radio availability</td>
<td>&gt;99.8%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(g)</td>
<td>Percentage of connections with good voice quality</td>
<td>&gt;95%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(h)</td>
<td>Service Access Delay</td>
<td>Between 9 to 20 seconds depending upon the number of paging attempts (Average of 100 calls &lt;15 sec)</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(i)</td>
<td>Handover Success Rate</td>
<td>&gt;85%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(j)</td>
<td>Actual Percentage of total cells to be benchmarked against all above parameters</td>
<td>95% of the total rural cells</td>
<td>Every 3 Months</td>
</tr>
</tbody>
</table>

Public Telecommunication Services Licence for CELCOM Limited
1.3. CORE NETWORK

<table>
<thead>
<tr>
<th>n</th>
<th>PARAMETER</th>
<th>BENCHMARKS</th>
<th>ASSESSMENT PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>Overall POI / Trunk congestion</td>
<td>&lt;2%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>MTL route</td>
<td>&lt;2%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>2</td>
<td>TNM route</td>
<td>&lt;2%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>3</td>
<td>Alltel route</td>
<td>&lt;2%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>4</td>
<td>International gateway route</td>
<td>&lt;2%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>5</td>
<td>Call centre route</td>
<td>&lt;2%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>6</td>
<td>ACL route</td>
<td>&lt;2%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>7</td>
<td>Other routes</td>
<td>&lt;2%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(b)</td>
<td>SMS success rate</td>
<td>Own Net &gt;98% Other Networks &gt; 85%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(c)</td>
<td>IN availability</td>
<td>&gt;99.999%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(d)</td>
<td>MSC availability</td>
<td>&gt;99.999%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(e)</td>
<td>Inter-BSC handover success rate</td>
<td>&gt;95%</td>
<td></td>
</tr>
</tbody>
</table>

1.4. DEFINITIONS

- Call Set-Up Success Rate (CSSR)

CSSR is defined as the ratio of established calls to call attempts. Established calls means the following events have happened in call set-up:

(i) Attempt is made;

(ii) The Traffic Channel (TCH) is allocated; and

(iii) The call is routed to the outwards path of the concern Master Station Controller (MSC).

(iv) This parameter is being measured at cell level based on location (rural or urban) and percentage of total cells. This fraction is usually measured as a percentage of all attempts made.

- Blocked Call Rate

Blocked Call means a call that is not connected because there is no free channel to serve a call attempt. Numbers of blocked calls are those times where there is no free channel to serve a call attempt. Hence this parameter represents congestion in the network. The congestion may be at the Stand-alone Dedicated Control Channel (SDCCH) level or the Traffic Channel (TCH) level.

- Voice Quality

(v) The quality of voice in cellular mobile telecommunications services is measured on a scale of 0 to 7. As the quality deteriorates, this value increases. The quality of voice is considered to be good, if this value remains between 0 and 4. However, this value may be between 0 and 5 for the network where frequency hopping phenomenon is used. Since voice quality is a complex psycho-acoustic phenomenon within the process of perception, it is generally expressed as a Mean Opinion Score (MOS). This parameter is equally being measured at cell level based on location (rural or urban) and percentage of total cells.

- Call Drop Rate (CDR)

(vi) A dropped call is a call that is prematurely terminated before being released normally by either the caller or called party. (i.e. the call is dropped before the exchange of release message “RL-M” and released complete message “RLC-M” in the signalling flow). CDR is therefore defined as the ratio of calls lost after establishment to all established calls. This shall include calls dropped due to failure of handover, radio loss and network congestion. The parameter is being measured at cell level based on location (rural or urban) and percentage of total cells.

- SDCCH Congestion

This KPI measures the availability of signalling capacity to set up a call. It measures the ease with which a call can be set up; recharge an account, send SMS, location update e.t.c.

- TCH Congestion (with & without handover)

This KPI measures the relative ease with which a Traffic Channel (TCH) can be seized to set up a call after signalling seizure has been successful. The higher the value, the relative difficulty in making a call. It is the condition of a network...
where the immediate establishment of a new connection is impossible owing to the unavailability of network element due to unusually high traffic that may accumulate in any portion of network.

The first level of congestion is experienced where there is no handover whilst for the case of cell to cell handover, there is another level of congestion that may be experienced when the request for handover is made and has not been successful.

- **POI/Trunk Congestion**
  This KPI measures the ease with which a customer of one network is able to communicate with a customer of another network. This parameter also reflects as to how effective is the interconnection between the two networks. POI reflects the points lying on the route interconnecting two telecommunications networks.

- **GPRS Attach Success Rt**
  This KPI measures the success rate of attached subscribers to packet core network using the General Packet Radio Service for data services.

- **Handover Success Ra**
  This is the ratio of the number of successfully completed handovers to the total number of initiated handovers. This ratio can be expressed as a percentage.

- **Service Access Delay**
  The time a network interface waits before it can access a shared network within the system.

- **Availability (Radio, MSC, IN)**
  Availability is a performance criterion for repairable systems that accounts for both the reliability and maintainability properties of a system. It is defined as the probability that the system is operating properly when it is requested for use. Availability is always associated with time.

- **SMS Success Rate**
  SMS success rate refers to the successful delivery of SMSs across all SMSCs. SMSC is a combination of hardware and software responsible for the relaying, storing, and forwarding of a short message between short message entities (SME) and mobile device.

### Intc-BSC handover Success rate

This is the ratio of the number of successfully completed handovers to the total number of initiated handovers from one BSC to another BSC. This ratio can be expressed as a percentage.

#### 2. 3G NETWORK

<table>
<thead>
<tr>
<th>#</th>
<th>PARAMETER</th>
<th>BENCHMARKS AT LAUNCH</th>
<th>ASSESSMENT PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>CDR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a)</td>
<td>HSDPA and HSUPA Service Drop Rate</td>
<td>&lt;0.5%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(b)</td>
<td>Packet Switched (PS) Service Drop Rate</td>
<td>&lt;1%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(c)</td>
<td>Video Call Drop Rate</td>
<td>&lt;1%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(d)</td>
<td>Voice Call Drop Rate</td>
<td>&lt;1%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>2.2</td>
<td>ACCESS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a)</td>
<td>RRC Connection Set-up Success Rate</td>
<td>&gt;98%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(b)</td>
<td>Video Call RAB assignment Success Rate</td>
<td>&gt;98%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(c)</td>
<td>PS RAB Assignment Success Rate</td>
<td>&gt;98%</td>
<td>Every 3 Months</td>
</tr>
</tbody>
</table>
### CALL DROP RATE (CDR)

- **Packet Switched (PS) Service Drop Rate**
  This KPI is used to evaluate the call drop rate of all PS service in one RNC. The call drops happened due to RNC abnormal release triggered by RAB release request messages. Session drop rate can be defined as the number of successful PDP deactivations against number of successful PDP activations.

- **Call Drop Rate (Voice, Circuit Switched)**
  A dropped call occurs. The call will be dropped in case RRC connection release (not normal release) message has been sent from RNC to UE.

- **CS Call Drop Rate** refers to CDR for all CS services while PS Call Drop rate refers to CDR for all PS services.

- **Accessibility**
  This KPI refers to the ability to get in contact with the network. Accessibility is defined as the ability to set up a connection. This ranges from random access to channel assignment.

- **Radio Access Bearer (RAB)**
  This KPI refers to the logical entity which carries data depending on service. This is equivalent to the Traffic Channel (TCH) in the 2G network. RAB (Radio Access Bearer) is set up between the core and UE.

- **RRC Connection Set-up**
  This KPI refers to the message used by the network to accept the establishment of an RRC connection for an UE, including assignment of signaling link information, transport channel information and optionally physical channel information.

- **RRC Connection Set-up Success Rate**
  This KPI refers to the total number of successful RRC connection requests.

- **PS RAB Assignment Success Rate**
  This KPI is used to evaluate the RAB setup success ratio of all PS service in one RNC.

### MOBILITY/HANDOVER

| (d) | HSDPA and HSUPA RAB Set-up Success Rate | >98% | Every 3 Months
|----|--------------------------------------|------|----------------
| (e) | Soft Handover Failure Rate           | <0.5%| Every 3 Months
| (h) | HSPDA Serving Cell Change Success Rate | >99.0% | Every 3 Months
| (c) | Inter-frequency Hard Handover Success Rate | >95% | Every 3 months
| (f) | 3G to 2G (from UTRAN to GSM) Inter-RAT handover Failure Rate | <3% | Every 3 Months

### DEFINITIONS RELATING TO 3G NETWORK

### HANDOVER

Handover is an important role in UMTS as any other form of cellular telecommunications system. Any failures within the UMTS handover procedure will lead to dropped calls which will in turn result in user dissatisfaction and ultimately it may lead to users changing networks, thereby increasing the churn rate.

- **Soft Handover Failure Rate**
  This KPI is used to evaluate the soft handover success ratio in one RNC, which includes softer handover. This form of handover is a more gradual and the UE communicates simultaneously with more than one Node B or base station during the handover process.

- **HSUPA Serving Cell Change Success Rate**
  This is the change of a UE from a serving cell to a better cell. Every UE measures the Ec/Io (difference between the strength of the signal and the noise floor) of their neighboring cells. The cells with the strongest pilot signals are in the UE’s active set. HSUPA connection is always to one of the cells in the AS, which is the serving HSUPA cell.

- **Inter-frequency Hard Handover**
  This KPI is used to evaluate the inter-frequency hard handover success ratio in one RNC. This form of handover is essentially the same as that used for 2G networks where one link is broken and another established.

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• **3G to 2G (from UTRAN to GSM) Inter-RAT Handover Failure**

This KPI is used to evaluate inter-RAT Handover success ratio in one RNC. This form of handover occurs when mobiles have to change between Radio Access Technologies.

• **RAN Availability**

This is the Radio Access Network availability of UMTS network (3G Network Radio Availability).

**KEY**

| 2G  | Second Generation |
| 3G  | Third Generation  |
| AS  | Active Set       |
| CDR | Call Drop Rate/Call Detail Record |
| CSSR| Call Set-up Success Rate |
| GPRS| General Packet Radio Service |
| GSM | Global System for Mobile Communications |
| HSDPA| High Speed Downlink Packet Access |
| HSUPA| High Speed Uplink packet Access |
| IN  | Intelligent Network |
| MOS | Mean Opinion Score |
| MSC | Mobile Switching Centre |
| Node B | Node B is a term used in UMTS equivalent to a BTS in GSM. |
| PDP | Packet Data Protocol |
| POI | Point of Interface/Interconnection |
| PS  | Packet Switched |
| RAB | Radio Access Bearer |
| RAN | Radio Access Network |
| RAT | Radio Access Technology |
| RNC | Radio Network Controller |
| RRC | Radio Resource Control |
| SDCCCH| Stand-alone Dedicated Control Channel |
| SMS | Short Message Service |
| TCH | Traffic Channel |
| UE  | User Equipment |
| UMTS| Universal Mobile Telecommunications System |
| UTRAN| UMTS Terrestrial Radio Network Access Network |

**TABLE S3.2 PENALTIES**

| 1   | 1   | USD 2,500 | USD 5,000 | USD 10,000 |
| 2   | 2 to 3 | USD 10,000 | USD 15,000 | USD 20,000 |
| 3   | 4 to 5 | USD 20,000 | USD 25,000 | USD 30,000 |
| 4   | ≥6  | USD 30,000 | USD 35,000 | USD 40,000 |

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SCHEDULE 4

TABLE S4.1 QUALITY OF SERVICE PARAMETERS FOR PROVISION OF FIXED VOICE TELEPHONY SERVICE (CDMA)

<table>
<thead>
<tr>
<th>#</th>
<th>PARAMETER</th>
<th>BENCHMARKS</th>
<th>ASSEMENT PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>EVDO Connection Success rate</td>
<td>&gt;90%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(b)</td>
<td>1x Data Call Setup Success rate</td>
<td>&gt;90%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(c)</td>
<td>CSSR</td>
<td>&gt;98%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(d)</td>
<td>Call Drop Rate</td>
<td>&lt;2%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(e)</td>
<td>POI / Trunk congestion (Incoming and Outgoing traffic)</td>
<td>&lt;2%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(f)</td>
<td>8. ACL route</td>
<td>&lt;2%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(g)</td>
<td>9. TNM route</td>
<td>&lt;2%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(h)</td>
<td>10. International gateway route</td>
<td>&lt;2%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(i)</td>
<td>11. Call centre route</td>
<td>&lt;2%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(j)</td>
<td>12. Airtel route</td>
<td>&lt;2%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(k)</td>
<td>13. Other routes</td>
<td>&lt;2%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(l)</td>
<td>TCH congestion</td>
<td>&lt;3%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(m)</td>
<td>SMS success rate</td>
<td>Own Net &gt;98%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(n)</td>
<td>Radio availability</td>
<td>&gt;99.8%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(o)</td>
<td>IN availability</td>
<td>&gt;99.999%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(p)</td>
<td>MSC availability</td>
<td>&gt;99.999%</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(q)</td>
<td>Service Access Delay</td>
<td>Between 9 to 20 seconds</td>
<td>Every 3 Months</td>
</tr>
<tr>
<td>(r)</td>
<td>Handover Success Rate</td>
<td>&gt;90%</td>
<td>Every 3 Months</td>
</tr>
</tbody>
</table>

KEY—
EVDO — Evolution, Data-only
1X — 1X Radio Transmission Technology
CDMA — Code Division Multiple Access
CDR — Call Drop Rate
CSSR — Call Set-up Success Rate
IN — Intelligent Network
MSC — Mobile Switching Centre
POI — Point of Interface / Interconnection
SMS — Short Message Service
TCH — Traffic Channel

DEFINITIONS

• **1X**
  This is a CDMA standard that aims to bring high data rate capabilities to wireless communication products. It supports both voice and data at a maximum speed of 153.6kbps using a channel bandwidth of 1.25MHz.

• **Evolution, Data-Only (EVDO)**
  EV-DO originally stood for “Evolution, Data-Only”, but recently is also referred to as “Evolution, Data Optimized. This is a telecommunications standard for the wireless transmission of data through radio signals, typically for broadband internet access (it is also commonly referred to as mobile broadband).
  EVDO is a CDMA standard for high speed wireless broadband provisioning using the cellular approach which has already proven to work best for mobile phone networks. EVDO optimizes bandwidth usage on the network by breaking data into packets and then sending these packets independent of each other as with internet protocol (IP). EVDO supports higher data speeds for both uplink and downlink using a channel bandwidth of only 1.25MHz.

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**Code Division Multiple Access (CDMA)**
A digital method of simultaneously transmitting signals over a shared portion of the Spectrum by coding each distinct signal with a code ship. CDMA enables multiple phone calls to be carried on the same frequency by using a voice-coding system.

**Call Set-Up Success Rate (CSSR)**
CSSR is defined as the ratio of established calls to call attempts. Established calls means the following events have happened in call set-up:

1. Attempt is made;
2. The Traffic Channel (TCH) is allocated; and
3. The call is routed to the outwards path of the concern Mobile Switching Center (MSC).

This fraction is usually measured as a percentage of all attempts made.

**Call Drop Rate (CDR)**
A dropped call is a call that is prematurely terminated before being released normally by either the caller or called party. CDR is therefore defined as the ratio of calls lost after establishment to all established calls. This shall include calls dropped due to failure of handover, radioloss and network congestion.

**TCH Congestion**
This KPI measures the relative ease with which a Traffic Channel (TCH) can be seized to set up a call. The higher the value, the relative difficulty in making a call. It is the condition of a network where the immediate establishment of a new connection is impossible owing to the unavailability of network element due to unusually high traffic that may accumulate in any node of network.

**PQI/Trunk Congestion**
This KPI measures the ease with which a customer of one network is able to communicate with a customer of another network. This parameter also reflects as to how effective is the interconnection between the two networks. PQI reflects the points lying on the route interconnecting two telecommunications networks and will be measured in both directions in the same time-period.

**Handover Success Rate**
This is the ratio of the number of successfully completed handovers to the total number of initiated handovers. This ratio can be expressed as a percentage.

**Service Access Delay**
The time a network interface waits before it can access a shared network within the system.

**Availability (Radio, MSC, IN)**
Availability is a performance criterion for repairable systems that accounts for both the reliability and maintainability properties of a system. It is defined as the probability that the system is operating properly when it is requested for use. Availability is always associated with time.

**SMS Success Rate**
SMS success rate refers to the successful delivery of SMSs across all SMSCs. SMSC is a combination of hardware and software responsible for the relaying, storing and forwarding of a short message between short message entities (SME) and mobile device.

**NOTE:** Planned maintenance with prior notification to the Authority will not form part of downtime calculations.

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<th>TABLE S4.2 PENALTIES FOR CDMA QOS PARAMETERS</th>
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Public Telecommunication Services Licence for CELCOM Limited
SCHEDULE 5

PERFORMANCE GUARANTEE

Table S.5.1: Performance Guarantee Bond Form

To:
Director General
Malawi Communications Regulatory Authority
Salmin Amour Road
Private Bag 261, Blantyre
Malawi

In consideration of the Malawi Communications Regulatory Authority (hereinafter referred to as the “Authority”) having agreed to grant a Licence to:

M/s CELCOM Ltd, P.O. Box 5494, Limbe
(hereinafter referred to as “LICENSEE”) to provide
PUBLIC TELECOMMUNICATIONS SERVICES

(hereinafter referred to as “Licensed Services”) on the terms and conditions contained in the said Licence, which inter alia provides for production of a Bank Guarantee to the extent of US $ ........................................

( ................................................... in words) for provision of the service by way of security for the due observance and performance of the terms and conditions of the said Licence.

1. We .................................................... (indicate the name and address and other particulars of the Bank) (hereinafter referred to as “the Bank”) at the request of the LICENSEE hereby irrevocably and unconditionally guarantee to the Authority that the Licensee shall render all necessary and efficient services which may be required to be rendered by the LICENSEE in connection with and/or for the performance of the said Licence and further guarantee that the service which shall be provided by the LICENSEE under the said Licence, shall be actually performed in accordance with terms and conditions of the Licence to the satisfaction of the Authority.

2. We, .................................................... (“the Bank”) hereby undertake to pay to the Authority an amount not exceeding US $ ................................................... in words) only against any loss or damage caused to or suffered or would be caused to or suffered by the Authority by reason of any breach by the said LICENSEE of any of the terms and conditions contained in the said Licence.

3. We, .................................................... (“the Bank”), in pursuance of the terms of the said Licence, absolutely, irrevocably and unconditionally guarantee as primary obligor and not merely as surety the payment of an amount of US $ ................................................... in words) to the Authority to secure due and faithful performance by the LICENSEE of all his/her obligations under the said Licence.

4. We, .................................................... (“the Bank”), hereby also undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Authority stating that the amount claimed is due by way of loss or damage caused or would be caused to or suffered by the Authority by reason of breach by the said LICENSEE of any of the terms or conditions contained in the said Licence or by reason of the Licensee’s failure to perform any of its obligations under the said Licence.

5. We, .................................................... (“the Bank”), do hereby agree that the decision of the Authority as to whether the Licensee has failed to or neglected to perform or discharge his duties and obligations as aforesaid and/or whether the service is free from deficiencies and defects and is in accordance with or not of the terms & conditions of the said Licence and as to the amount payable to the Authority by the Bank hereunder shall be final and binding on the Bank.

6. WE, THE BANK, DO HEREBY DECLARE AND AGREE that:

(a) the Guarantee herein contained shall remain in full force and effect for a period of ................................................... (years) from the date hereof and that if shall continue to be enforceable till all the duties of the Authority and by virtue of the said Licence have been fully paid and its claims satisfied or discharged or till Authority satisfies that the terms and conditions of the said Licence have been fully and properly carried out by the said LICENSEE and accordingly discharged this guarantee.

(b) the Authority shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Licence or to extend time of performance of any obligations by the said LICENSEE from time to time or to postpone for any time or from time to time any of the powers exercisable by the Authority against the said LICENSEE and to forbear or to enforce any of the terms and conditions relating to the said Licence and we shall not be relieved from our liability by reason of any variation or extension being granted to the said LICENSEE or forbearance act or omission on the part of the Authority or any indulgence by the Authority to the said LICENSEE or to

Public Telecommunication Services Licence for CELCOM Limited
give such matter or thing whatsoever which under the law relating to sureties would but for this provision, have effect of so relieving us.

(c) any claim which we have against the LICENSEE shall be subject and subordinate to the prior payment and performance in full of all the obligations of us hereunder and we will not without prior written consent of the Authority exercise any legal right or remedy of any kind in respect of any such payment or performance so long as the obligations of us hereunder remain owing and outstanding.

(d) This guarantee shall be irrevocable and the obligations of us herein shall not be conditional of any prior notice by us or by the LICENSEE.

7. We the BANK undertake not to revoke this Guarantee during its currency except with the previous consent of the Authority in writing.

Dated this ..................................................... day of ...................................................

Signature

Name of Witness and Stamp