



## **MALAWI NATIONAL NUMBERING PLAN**

### **1. INTRODUCTION**

The Malawi Communications Act, 2016, mandates the Malawi Communications Authority (the Authority) to regulate, supervise and promote the provision of all ICT services in Malawi. This mandate incorporates regulation of electronic communication numbering, national numbering plan and assignment of numbers or blocks of numbers.

The Authority consequently has the responsibility to make necessary changes to the numbering plan when required. Telecommunication is a fast-changing and technology driven industry, hence the need for the nation's numbering plan to continually evolve to keep track of and adapt to these changes. Recent developments in the global telecommunications industry such as M2M communications, the internet of things, over-the-top services and other service made possible by fourth-generation networks and the futuristic 5G/6G technologies have made it imperative for Malawi's Numbering Plan to be reviewed.

The Authority has therefore reviewed the National Numbering Plan. The reviewed Plan is intended to provide a clear and concise direction to Malawian ICT industry on how numbers are to be assigned and used. Designed in line with ITU E.164 recommendation, the Malawi National Numbering Plan specifies the structure for telephone, freephone, premium rate, short codes and local rate numbers to be used behind the +265 Country Code.

### **2. DEFINITIONS**

**Assignee:** A person to whom a number, number block or code has been allocated.

**Allocation:** Permitting the use of the respective number, number block or code by the assignee (service provider, infrastructure provider, application provider or end-user).

**Block:** A set of blocks that consist of numbers that are defined in the National Numbering plan.

**Code:** Positive integer that forms the most significant digits of each of the numbers in a block.

**Country Code (CC) for Networks:** A shared 3-digit Country Code used in combination with an identification code to identify an international Network.

**International number:** The number to be dialled following the international prefix to call a subscriber in another country.

**International Signalling point codes (ISPCs):** A signalling point code with a unique 14-bit format used at the international level for signalling message routing and identification of signalling points involved. The ISPC is used in signalling messages containing the Network Indicator NI=00.

**International Prefix:** A digit or combination of digits to be dialled by a calling subscriber making a call to a subscriber in another country to obtain access to the automatic outgoing international equipment.

**Mobile Network Code:** a 2 (in some cases 3) digit code that uniquely identifies a mobile network within a country.

**National Destination Code (NDC):** A nationally optional code field within the E.164 number plan, which combined with the subscriber's number (SN), will constitute the national (significant) number of the international public telecommunication number for geographic areas. The NDC will have a network and/or trunk code selection function

**National (trunk) Prefix:** A digit or combination of digits to be dialled by a calling subscriber, making a call to a subscriber in his own country but outside his own numbering area. It provides access to the automatic outgoing trunk equipment.

**National (Significant) Number (N(S)N):** The number to be dialled following the national (trunk) prefix to obtain a subscriber in the same country (or group of countries included in one integrated numbering plan) but outside the same local network or numbering area.

**Network:** Internationally interconnected physical nodes and operational systems operated and maintained by one or more ROAs to provide public telecommunications services. Private networks are not included in this definition. Note that the use of capital "N" in Networks indicates that this definition applies.

**Number:** Is a sequence of digits that might be used to identify the network termination points that are associated with a particular service or consumer.

**Prefix:** A prefix is an indicator consisting of one or more digits that allows the selection of different types of number formats (e.g. local, national or international), transit networks and/or the service. Prefixes are not part of the number and are not signalled over the inter-network or international boundaries.

**Premium Numbers:** Numbers for which users pay a premium above a normal rate in order to access advanced services.

**Short code:** String of digits in the national numbering plan (NNP), as defined by the Authority, which can be used as a complete dialling sequence on public networks to access a specific type of service/network. The length of a short code is normally shorter than a subscriber number.

**Signalling point:** A node in a signalling network that originates and receives signalling messages, or transfers signalling messages from one signalling link to another, or both.

**Signalling Point Code:** An identity given to a node in the CCSS No. 7 signalling that either originates, receives or transfers signalling messages.

**Subscriber:** Is any individual, business or entity that purchases or subscribes to any communication service and includes any person who agrees to receive and pay for a service.

**Subscriber Number (SN):** The number identifying a subscriber in a network or numbering area.

**Trunk Code (TC):** A digit or combination of digits, not including the national (trunk) prefix, identifying the numbering area within a country (or group of countries included in one integrated numbering plan or specific geographic area).

### **3. ABBREVIATIONS**

**CC-** Country Code

**ITU-** International Telecommunication Union

**NDC-** National Destination Code

**PSTN** – Public Switched Telephone Network

**SN** - Subscriber Number

**ROA** - Recognized Operating Agency

**MNC-** Mobile Network Codes

**ISPC-** International Signaling Point Code

**NSPC-** National Signaling Point Code

**NCC-** Network Colour Code

### **4. THE NATIONAL NUMBERING SCHEME**

#### **4.1. Prefixes**

##### **4.1.1. National Prefix**

“0” is the national prefix that will be used for national long distance calls (cellular mobile as well as basic services) and shall indicate national calls whenever dialed in the dialing procedure.

##### **4.1.2. International Prefix**

“00” or “+” in the dialing procedure shall indicate calls being routed to international destinations.

#### **4.2. Short Code Numbers**

For the purposes of this numbering plan, short codes are categorized by the type of service for which they are used. There are two categories according to their respective digit lengths: 3 Digits and 4 Digits.

The Authority has designated short codes to be a minimum of 3 digits and maximum of 4 digits depending on the type of application or service. Nevertheless, the length can be adjusted upwards in line with ITU-T E.164 recommendations. An outline of the short codes described below are shown in the subsequent tables: -

#### 4.2.1. Emergency Services Codes

These are to be used to access national services associated with emergency and safety services.

#### 4.2.2. Common Network Codes

These codes are to be used by licensed service providers to deliver user assistance services like customer service enquiries and billing related enquiries that are commonly provided across the different networks.

#### 4.2.3. Independent Network Codes

These codes are used by end-users only within the assignee's network to access services uniquely offered by the respective service provider.

**Table 1. Three (3) Digit Short Codes**

Numbering Range	Service
10X – 109	Customer Care Assistance (free of charge)
11X - 119	Life and Safety(Emergency) (free of charge)
12X - 199	Reserved
2XX – 299	Reserved
3XX - 399	Data, Voice, USSD, and SMS services.
4XX - 499	Data, Voice, USSD, and SMS services.
5XX - 899	For future use
9XX - 999	Lifeline services e.g. VCT, and other Helplines. All code with 99X are for future use for emergency: Police, Fire brigade, Ambulance.

**Table 2. Four (4) Digit Short Codes**

<b>Numbering Range</b>	<b>Service</b>
10XX - 1099	Reserved
11XX - 1199	Lifeline Services
12XX - 1999	Reserved
2XXX - 2999	Reserved
3XXX - 3999	Data, Voice, USSD, and SMS services.
4XXX - 4999	Data, Voice, USSD, and SMS services.
5XXX - 8999	Reserved

#### 4.3. Subscribers Numbers

Under the subscriber's number range, the allocations that have so far been made available are outlined in the table below. Only licensed Public Service Providers (voice and data) that already or are going to provide fixed and mobile services are eligible for allocation of mobile numbers. This includes Mobile Virtual Network Operators (MVNOs).

**Table 3. Subscribers Number**

<b>Numbering Range</b>	<b>Service</b>
01 XXXX XX	Malawi Telecommunications Ltd. (MTL)
01 XXXX XXXX	Reserved
02 1XXX XXXX	Access Communications Ltd. (ACL)
02 2XXX XXXX – 02 9XXX XXXX	Reserved
03 1XXX XXXX	Telekom Networks Malawi Ltd. (TNM)
03 2XXX XXXX – 03 9XXX XXXX	Reserved
04 XXXX XXXX	Reserved
05 XXXX XXXX	Reserved

06 XXXX XXXX	Reserved
07 XXXX XXXX	Reserved
08 1XXX XXX – 08 7XXX XXXX	Reserved
08 8XXX XXXX	TNM
08 9XXX XXXX	Reserved
09 1XXX XXXX – 09 8XXX XXXX	Reserved
09 9XXX XXXX	Airtel Malawi Plc. (Airtel)

#### 4.4. International Signalling Point Codes (ISPCs)

The ISPC is a 14-bit binary code represented by three decimal numbers in the format 6-100-1/X and 6-1011/X. The first or most significant 11 digits constitute the SANC (Signalling Area/Network Code), assigned by ITU to each country. The three least significant bits identify the specific signalling point allocated by the Authority. The current assignments are outlined in the table below:

**Table 4 ISPCs**

Exchange Operator	Assigned ISPC
MTL	6 – 100 – 1
TNM	6 – 100 – 2
Airtel	6 – 100 – 3
TNM	6 – 100 – 4
Airtel	6 – 100 – 5
Access	6 – 100 – 6
Airtel	6 – 100 – 7
TNM	6 – 101 – 0
TNM	6 – 101 – 2
TNM	6 – 101 – 3
Airtel	6 – 101 – 4

#### 4.5. Mobile Network Codes (MNC)

The Authority has assigned a two-digit Mobile Network Code (MNC) between 01 and 09 to every Public Service Provider (voice and data) that has been licensed to offer telecommunications services. The current sequential assignments are captured in the table below:

**Table 6. MNCs**

Mobile Network Code (MNC)	Name of Network Operator
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01	TNM
02	ACL
03	Reserved
04	Reserved
05	Reserved
06	Afrimax
07	Reserved
08	Reserved
09	Reserved
10	Airtel

#### 4.6. Geographical Services Numbers - 01A

The NDC code digit < A > has been allocated to the following geographical areas as outlined in the table below:

**Table 7 Geographical Numbers**

Number Range	Region
01 2xx xxx	Central Region Districts
01 3xx xxx	Northern Region
01 4xx xxx	Southern Region Districts
01 5xx xxx	Eastern Region Districts
01 6xx xxx	Blantyre
01 7xx xxx	Lilongwe
01 8xx xxx	Blantyre

#### 4.7. Premium and Multimedia Services

The prefix '09' is reserved for Premium-rate services that will be used by multimedia and others. The service will be operated on a shared revenue basis between the operators and service providers.

**Table 8. Premium and Multimedia Services**

Premium Rate Number Series	Associated Services/Applications	Numbers Assigned	Licensee (s) Assigned
0 900 0xxxxx			

### 5. STANDARDS

The numbering plan shall conform to the relevant international standards. In particular, attention is drawn to the following ITU-T Recommendations :-

**E.164** – The International public telecommunications numbering plan.



**E.161** – Arrangements of figures, letters and symbols on telephones and other devices that can be used for gaining access to a telephone network.

**E.123** – Standard notation for national and international telephone numbers.

**X.21** - Interface between Data Terminal Equipment and Data Circuit-terminating Equipment for synchronous operation on public data networks.

**F.69** - The international telex service – Service and operational provisions of telex destination codes and telex network identification codes.

**E.212** - The international identification plan for mobile terminals and mobile users.

**Q.708** - Assignment procedures for international signaling point codes.

## **6. TRANSITIONAL ARRANGEMENTS**

6.1 This National Numbering Plan shall become operational on the day (the Effective Date) it is published by the Authority in the Gazette

6.2 All existing assignees shall, within three (3) months from the Effective Date, submit applications to the Authority for numbering resources indicating:

(a) all numbering resources assigned by the Authority to the assignee before the Effective Date; and

(b) any additional information prescribed by the Authority.

6.3 The Authority shall communicate its decision on an application made under paragraph 6.2 within three months from the date of receiving the application.

6.4 The Authority shall assign the same numbering resources the assignee had before the Effective Date unless the assignee indicates in the application that it wishes to be assigned a different allocation.

6.5 An assignee shall pay numbering fees prescribed by the Authority in the Numbering Fee Schedule.

6.6 An assignee shall be exempt from paying initial numbering fees in respect of numbering resources assigned before the Effective Date.

