



**NATIONAL NUMBERING PLAN  
AND  
LIST OF NUMBERING RESOURCE ALLOCATIONS AND  
ASSIGNMENTS**

<b>NATIONAL NUMBERING PLAN</b>	Version	<b>Version 12</b>
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## DEFINITIONS

**“Administration of Numbering Resources”** means the set of activities associated with the Assignment, Designation, and the oversight and monitoring of Numbering Resources, whose Allocation is established in the Numbering Plan.

**“Allocation”** means the attribution of the purpose and quantitative capacity of sets of Numbering Resources established in Numbering Plan.

**“Assignment”** means the allotment of Numbering Resources previously allocated in a Numbering Plan for a given telecommunications service provider or end-user.

**“Assignment Guidelines” Assignee”** means a person (natural or legal) to whom an assignment of numbers is made.

**“End user”** means a person who utilizes telecommunications services by assigned numbering resources.

**“Facilities-based Service Provider”** means a service provider who owns and operates the telecommunications network facilities used in the provision of a specified service.

**“Freephone”** means telephone service whereby a subscribing organization can pay for the incoming calls made by its clients or customers.

**“National Numbering Plan”** means the identification of the framework for allocation of ordinary numbering blocks, carrier identification codes, short codes, and other unique numbering resources to different applications and categories of resource

**“Primary assignment”** means the assignment of numbering resources by the BOCRA to individual companies and service providers.

**“Public Land Mobile Network”** means a combination of wireless communication services offered by a specific operator in a specific country

**“Public Switched Data Networks”** means a publicly available network supporting packet-switched data, separate from the Public Switched Telephone Network.

**“Public Switched Telephone Network”** means is the aggregate of the world's circuit-switched telephone networks that are operated by national,

regional, or local telephone operators, providing infrastructure and services for public telecommunication

**“Secondary assignment”** means the assignment of numbering resources by recipients of a primary assignment to their customers.

**“Shared calls”** means is the sharing of a phone number across multiple devices in different locations

## ACRONYMS

<b>CRA Act</b>	Communications Regulatory Authority Act
<b>BOCRA</b>	Botswana Communications Regulatory Authority,
<b>CRASA</b>	Communications Regulators Association of Southern Africa.
<b>CC</b>	Country Code
<b>DNIC</b>	Data Network Interface Codes
<b>IoT</b>	Internet of Things
<b>ISPC</b>	International Signalling Point Codes
<b>M2M</b>	Machine to Machine
<b>MNC</b>	Mobile Network Codes
<b>MCC</b>	Mobile Country Code
<b>MNO</b>	Mobile Network Operator
<b>NCC</b>	Network Colour Codes
<b>NSPC</b>	National Signalling Point Codes
<b>NNP</b>	National Numbering Plan
<b>PRS</b>	Premium Rate Services
<b>PLMN</b>	Public Land Mobile Network (PLMN)
<b>PSDN</b>	Public Switched Data Network
<b>PSTN</b>	Public Switched Telephone Network (PSTN)
<b>SADC</b>	Southern African Development Community
<b>SPC</b>	Signalling Point Code
<b>USSD</b>	Unstructured Supplementary Service Data
<b>VANs</b>	Value Added Network Service providers
<b>VoIP</b>	Voice Over Internet Protocol

## **1. INTRODUCTION**

**1.1** Section 38 of the Communications Regulatory Authority Act of 2012, grants Botswana Communications Regulatory Authority (the Authority or BOCRA) the mandate to maintain a Numbering Plan and other telecommunication numbering resources used in Botswana.

**1.2** In fulfilling this statutory mandate, BOCRA is required to develop a National Numbering Plan (NNP) for:

**1.2.1** efficient use of the numbering resources of telecommunications services;

**1.2.2** adherence to the plan regarding the allocations and assignments of the numbering resources to the service providers.

**1.3** To achieve this mandate BOCRA shall:

**1.3.1** Ensure that the National Numbering Plan, where applicable, is compatible with relevant Numbering Plan Standards and Industry Guidelines, International Agreements, Standards and Recommendations.

**1.3.2** Manage the National Numbering Plan Allocations and Assignments to ensure that there are enough numbers available to meet current and reasonably anticipated future demands of services.

**1.3.3** Ensure that there is equity, efficiency and transparency in the allocation and primary assignment of numbers, and that costs to service providers and consumers are objectively justified.

## **2. PURPOSE**

**2.1** The purpose of the National Numbering Plan is to ensure transparent, non-discriminatory, and efficient number allocation,

assignment and use of telecommunications numbers by service providers and end-users for the provision and consumption of telecommunications services, respectively.

### **3. BACKGROUND**

**3.1** BOCRA adopts the principles and procedures, in the form of administration of Numbering Policies, Numbering Plan Code of Conduct and Numbering Database that govern the way numbering resources are allocated and assigned. These administrative mechanisms promote fair and efficient allocation, assignment and use of numbering resources.

**3.2** This Plan shall provide BOCRA and the Service Providers with a management platform and the specific identification to end users with regards to their respective services in relation to the numbering plan.

**3.3** In 2019, BOCRA adopted a revised Numbering Policy with several recommendations including:

**3.3.1** to review and modify the National Numbering Plan;

**3.3.2** enforcement of the Numbering Code of Conduct.

**3.4** Amongst others things, the revised policy recommendations advocated the following:

**3.4.1** The Introduction of Machine to Machine (M2M) communications new numbering block. Currently, the M2M/IoT services share the same numbering range with the mobile telephony. Initially, the M2M/IoT were not planned for in the current numbering plan. Hence the need to review and plan for it, noting that this is a relatively new and fast-growing service requiring specific numbering resources for use.

**3.4.2** The Adoption of the 116 children helpline telephone number in accordance with the CRASA-SADC Numbering guidelines and SADC resolutions.

**3.4.3** Number modifications or changes to accommodate expansion of Emergency numbers and the Unstructured Supplementary Service Data (USSD) codes.

#### **4. THE NATIONAL NUMBERING PLAN (NPP)**

**4.1** The National Numbering Plan in **Table 1** is the matrix for allocation of all numbers i.e., Fixed, Mobile, Short Codes, and other unique numbering resources. These are described in detail in the following sections.

**Table 1: The National Numbering Plan April 2020 to March 2021**

First digit	Second digit										
	0	1	2	3	4	5	6	7	8	9	
0	Int'l	Short international dialing in region							0800 & 08XX		
1	Short Codes										
2	NG	Geographic Numbering (Francistown region)									
3	NG	Geographic Numbering (Gaborone)									
4	NG	Geographic Numbering (Palapye region)									
5	NG	Geographic Numbering (South-east region)									
6	NG	Geographic Numbering (North and west regions)									
7	Mobile Numbering										
8	Non-Geographic Numbering (M2M and Mobile)										
9	PRS	91X	R e s e r v e d								99X

#### **4.2 Unique Numbers and Short Code numbers**

##### **4.2.1 Level 0 - International Access and Freephone Numbers**

Levels 0 is used for International access (**00**), the freephone numbers commencing with **0800** and shared calls allocated the **08XX** numbering range.

##### **4.2.2 Levels 1 - Short Codes**

Level 1 is used for the Short Codes . Short codes are short telephone numbers classified into three categories being

Types A, B and C. The numbers occupy the 1XX, 1XXX and 1XXXX number blocks i.e., three or four- and five-digits long numbers. Refer to Table 3 below.

**Table 2: Summary of Types of Short Codes**

Short Code Types	Services and attributes	Length of number digits
Type A	Nationally important services	3 digits long emergency services
Type B	Across net services i.e., accessed through all public MNOs	5 digits long: 16XXX, 17XXX, 18XX(X) and 19XXX number blocks.
Type C	On-Net services and can have same number for different services.	10X(X), 11XX, 12X(X).

#### **4.2.3 Level \*1 and \*2 - USSD codes.**

The levels \*1 and \*2 are used for the USSD codes which currently occupy the \*1XX\*XXX# and \*2XX\*XXX# numbering blocks.

#### **4.2.4 Levels 1 and 9 - Emergency Numbers**

Level 1 and part of level 9 is used for the emergency numbers. The emergency numbers occupy the 110-116, 99X and 91X numbering blocks. Refer to Table 3.

#### **4.2.5 Premium Rate Services**

The Premium Rate Services (PRS) in level 09 remains unused and reserved.

**Table 3: Assigned Emergency Numbers**

<b>Service Provider</b>	<b>Emergency Number</b>
All Emergencies	112
ChildLine Botswana	116
Emergency Assist	991
MedRescue International	992
Rescue One	993
Boitekanelo Medical Services	994
Okavango Air Rescue	995
Fire	997
Ambulance	998
Police	999
MedRescue International	911
Medflex	914

### **4.3 Fixed Numbers**

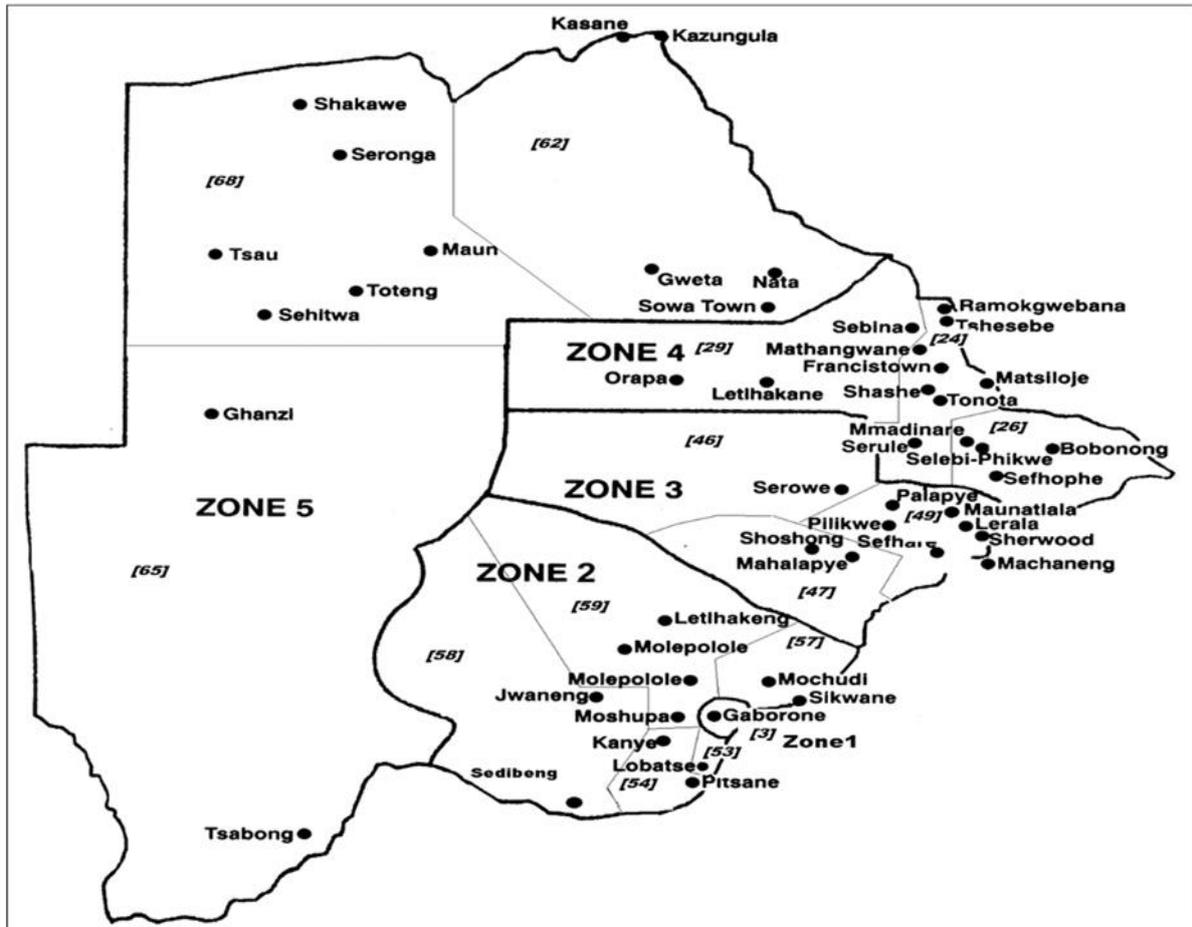
#### **4.3.1 Levels 2 to 6: Fixed numbers**

Level 2 to 6 are the seven (7) digits long geographical numbers occupying the numbering range from 2XX XXXX to 6XX XXXX respectively providing services to fixed line services. Refer to **Table 4 and Figure 1** below. These, however, excludes the following selected numbers on the second- and third-digit levels zero e.g., 200 0000, 300 0000, 460 0000, 530 0000, 680 0000 which are reserved.

**Table 4: Fixed numbers by the geographical location**

<i>Geographical Area</i>	<i>Number range</i>	<i>Zone</i>
Francistown Area	24X XXXX	4
Selebi-Phikwe Area	26X XXXX	4
Letlhakane/Orapa Area	29X XXXX	4
Gaborone Area	3XX XXXX	1
Serowe Area	46X XXXX	3
Mahalapye Area	47X XXXX	3
Palapye Area	49X XXXX	3
Ramotswa/Lobatse Area	53X XXXX	2
Barolong/Ngwaketse Area	54X XXXX	2
Mochudi Area	57X XXXX	2
Jwaneng Area	58X XXXX	2
Molepolole Area	59X XXXX	2
Kasane Area	62X XXXX	5
Ghanzi/Kgalagadi Area	65X XXXX	5
Maun Area	68X XXXX	5

**Figure 1: Geographical Demarcations of the Fixed Numbers**



## 4.4 VOIP NUMBERS

### 4.4.1 Level 7

The level 7 range of 79 XXX XXX is allocated for VoIP numbering services.

## 4.5 MOBILE NUMBERS

### 4.5.1 Level 7 and 8

Levels 7 and part of Level 8 are an eight digits long mobile number range from :71 XXX XXX to 78 XXX XXX ; and 81 XXX XXX to 85 XXX XXX respectively.

## 4.6 MACHINE TO MACHINE COMMUNICATIONS (M2M)/IOT

### 4.6.1 Level 8

The M2M communications is a 10 digit long numbering range that occupies numbering range from 86 XXXX XXXX to 89 XXXX XXXXX and supports the Internet of Things devices.

## 5. OTHER NUMBERING RESOURCES

5.1 The other numbering resources that enable seamless communications services are the known as Codes. Reference is made to Table 5. These Codes are listed as in the ITU Recommendation ITU-T E.164.

**Table 5: Instrumental Codes**

Important Codes	Relevance and Use
Country Code (CC)	267
Mobile Country Code (MCC)	652
National Signalling Point Codes	network interconnection purposes
Data Network Interface Code (DNICs)	X25 data networking
Network Colour Codes (NCC)	GSM base station identifiers
Mobile Network Code (MNC)	Public networks
International Signalling Point Code (ISPCs)	International signalling and it uses a 3-4-3 ITU format standard.

### 5.2 Mobile Network Code

There are three (03) Mobile Network Code (MNC) used in the Mobile Network Operators (MNOs) networks and these are allocated in accordance with the ITU Recommendation ITU-T E.212. Refer to table 6 below.

**Table 6: Mobile Network Codes**

Mobile Network Codes	Mobile Network Operator
01	Mascom Wireless
02	Orange Botswana
04	BTCL

### 5.3 The International Signalling Point Codes

These codes are used for the international signalling and it uses a 3-4-3 ITU format standard. There are currently 6 spare ISPCs

for Botswana. The following are assigned codes to Botswana for use as tabulated below.

**Table 7: International Signalling Point Codes for Botswana**

<b>International Code (ITU 3-4-3 Format)</b>	<b>Signalling Point</b>	<b>MNO Assigned</b>
6-104-0		Botswana Telecommunications Corporation Limited (BTCL)
6-104-1		Botswana Telecommunications Corporation Limited (BTCL)
6-104-2		Mascom Wireless
6-104-3		Orange Botswana
6-104-4		Orange Botswana
6-104-5		Botswana Telecommunications Corporation Limited (BTCL)
6-104-6		Botswana Telecommunications Corporation Limited (BTCL)
6-104-7		Mascom Wireless
6-105-0		Mascom Wireless
6-105-1		Mascom Wireless
6-105-2		Spare
6-105-3		Spare
6-105-4		Spare
6-105-5		Spare
6-105-6		Spare
6-105-7		Spare

## **6. NUMBERING ALLOCATIONS AND ASSIGNMENTS**

### **6.1 Application for Number**

**6.1.1** All operators of a Public Switched Telephone Network (PSTN), Public Land Mobile Network (PLMN), or a Public Switched Data Network(PSDN), providing, or intend to provide within a specified time, publicly available telephone services, and owning and operating a public telecommunication system, are eligible to apply for primary assignments of telephone numbering capacity, subject to satisfying an eligibility criterion specified in the Numbering Policy, Code of Conduct and other relevant standard specifications such as the International Telecommunications Union's ITU-T Recommendations.

**6.1.2** Non-facilities-based service providers may seek a secondary assignment from an eligible service provider. Secondary assignments shall be made in an efficient and non-discriminatory manner.

## 6.2 National Number Allocations

6.2.1 The table 8 shows the 8 digits active mobile number allocations across all MNOs.

**Table 8: Mobile Number Allocations as of 18<sup>th</sup> December 2020**

Mobile Network Operator	Mobile Number Range
Mascom Wireless	71 000 000 – 71 999 999 74 000 000 – 74 299 999 74 500 000 – 74 799 999 75 400 000 – 75 699 999 75 900 000 – 75 999 999 76 000 000 – 76 299 999 76 600 000 – 76 799 999 77 000 000 – 77 199 999 77 600 000 – 77 799 999 77 800 000 – 77 899 999
Orange Botswana	72 000 000 – 72 999 999 74 300 000 – 74 499 999 74 800 000 – 74 899 999 75 000 000 – 75 399 999 75 700 000 – 75 799 999 76 300 000 – 76 599 999 76 900 000 – 76 999 999 77 300 000 – 77 399 999 77 400 000 – 77 599 999 77 900 000 – 77 999 999 78 000 000 – 78 999 999 78 100 000 – 78 199 999
Botswana Telecommunications Corporation Limited (BTCL)	73 000 000 – 73 999 999 74 900 000-74 999 999 75 800 000 – 75 899 999 76 800 000 – 76 899 999 77 200 000 – 77 299 999

6.2.2 The table 9 shows the 8 digits active VoIP numbering allocations made to both the MNOs and the VANs:

**Table 9: VoIP Numbers as of 18 December 2020**

<i>Service Provider</i>	<i>VoIP Number range</i>
Virtual Business Network Services	79 100 000 – 79 100 999
AfriTel	79 101 000 – 79 101 999
Global Broadband Solutions	79 102 000 – 79 102 999
Business Solutions Consultants	79 103 000 – 79 103 999
Fourth Dimension	79 104 000 – 79 104 999
OPQ Net	79 105 000 – 79 105 999
Mega Internet	79 106 000 – 79 106 999
Stature (OpenVoice)	79 107 000 – 79 107 999 79 113 000 – 79 113 999
Tsagae Communications	79 108 000 – 79 108 999
MicroTeck Enterprises	79 109 000 – 79 109 999
Microla Botswana	79 110 000 – 79 110 999
Internet Options Botswana	79 111 000 – 79 111 999
FDI Foneworx	79 112 000 – 79 112 999
MTN Business Solutions	79 114 000 - 79 114 999
Abari Communications	79 115 000 – 79 115 999
Mission Communications	79 116 000 – 79 116 999
ConcertoTel	79 117 000 – 79 117 999
Paratus Africa	79 118 000 – 79 118 999
Blue Pearl Communications T/A ROI	79 119 000 – 79 119 999
Dapit Ventures T/A GCSat Botswana	79 120 000 – 79 120 999
Orange Botswana	79 200 000 – 79 209 999 79 220 000 – 79 229 999
Botswana Telecommunications Corporation Limited (BTCL)	79 210 000 – 79 219 999

**6.2.3** Table 9 shows the 10 number digits active Machine-to-Machine number allocations:

**Table 10: M2M Number Allocations as of December 2020**

<b>Mobile Network Operator</b>	<b>M2M Number range</b>
Orange Botswana	890 000 0000 – 890 000 9999
Botswana Telecommunications Corporation Limited (BTCL)	890 005 0000 – 890 005 9999
Mascom Wireless	Not Assigned yet

## **7. CONCLUSION**

**7.1** The National Numbering Plan is a way of ensuring:

**7.1.1** Prudent and efficient use of limited numbering resources;

**7.1.2** Effective number management.

**7.1.3** That customers can conveniently afford access to services using numbers; and

**7.1.4** All service providers have the numbering resources they need to compete in the rapidly growing telecommunications marketplace with the associated proliferation of new telecommunications technologies and services; and

**7.1.5** There is equity, efficiency, and transparency in the allocation of numbers as this is done objectively within the confines of the CRA Act of 2012.

**End.**