NATIONAL NUMBERING PLAN
AND

## LIST OF NUMBERING RESOURCE ALLOCATIONS AND ASSIGNMENTS

| NATIONAL NUMBERING PLAN | Version | Version 13 |
| :--- | :--- | :--- |
|  | Date | March 2022 |
|  | Department | Technical Services |

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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

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

## 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 the efficient use of the numbering resources of telecommunications services and ensure adherence to the plan regarding the allocations and assignments of the numbering resources to the service providers. To achieve this mandate BOCRA shall:
1.2.1 Ensure that the National Numbering Plan, where applicable, will ensure that it is compatible with relevant Numbering Plan Standards and Industry Guidelines, International Agreements, Standards and Recommendations.
1.2.2 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.
1.2.3 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 use of numbers. This practice assures service providers and end-users of excellent provision and consumption of telecommunications services.

## 3. BACKGROUND

3.1 The Authority adopts the numbering 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. These shall provide BOCRA and the Service Providers with a management platform and the end users with specific identification of their respective services in relation to the numbering plan.

## 4. THE NATIONAL NUMBERING PLAN (NPP)

4.1 The National Numbering Plan is pictorially illustrated in Table 1 and Figure 1. 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


### 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 08 XX 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 1 XXXX number blocks i.e., three or four- and five-digits long numbers. Refer to Table 2.

## Table 2: Summary of Types of Short Codes

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

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

The levels *1 and *2 are used for the USSD codes which currently occupy the * 1 XX* ${ }^{*}$ XXZ and *2XX* ${ }^{*}$ XX\# 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. Reference is made to to Table 3 below being a list of Emergency Service Providers.

Table 3: Assigned Emergency Numbers

| Service Provider | Emergency Number |
| :---: | :---: |
| 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 |
| Rapid Response | 912 |
| RescueMed Ambulance | 913 |
| Medflex | 914 |
| Critical Emegerncy Care | 920 |
| Eagle Ambulance | 922 |
| Pulse Finders | 923 |
| ER 24/7 | 924 |
| Medicare Medical Center | 925 |
| Botsogo Pele | 926 |

### 4.2.5 Premium Rate Services

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

### 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. Reference is made 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, $4600000,5300000,6800000$ which are reserved.

Table 4: Fixed numbers by the geographical location

| Geographical Area | Number range | Zone |
| :---: | :---: | :---: |
| 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 and these are the known as Codes reference is made to table 5 below. 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 Code | network interconnection purposes |
| Data Network Interface Cos data networking <br> (DNICs) | GSM base station identifiers |
| Network Colour Codes (NCC) | Public networks |
| Mobile Network Code (MNC) | International signalling and it uses a 3-8-3 <br> ITU format standard. |
| International Signalling Point Code <br> (ISPCs) |  |

### 5.2 Mobile Network Code

There are three (03) Mobile Network Code (MNC) used in the networks of the Mobile Network Operators (MNOs) and these are allocated in accordance with the ITU Recommendation ITU-T E.212. Reference is made 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 are represented using a ITU 3-8-3 format. 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

| International Signalling <br> Code (ITU 3-8-3 Format) | Point |
| :--- | :--- | MNO Assigned $\quad$| $6-104-0$ | Botswana Telecommunications Corporation <br> Limited (BTCL) |
| :--- | :--- |
| $6-104-1$ | Botswana Telecommunications Corporation <br> Limited (BTCL) |
| $6-104-2$ | Mascom Wireless |
| $6-104-3$ | Orange Botswana |
| $6-104-4$ | Orange Botswana |
| $6-104-5$ | Botswana Telecommunications Corporation <br> Limited (BTCL) |
| $6-104-6$ | Botswana Telecommunications Corporation <br> 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 intending 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 Ppolicy, 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 unless the Authority advises otherwise. However, secondary assignments shall be made in an efficient and nondiscriminatory manner.

### 6.2 National Number Allocations

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

Table 8: Mobile Number Allocations as of March 2022

| Mobile Network Operator | Mobile Number Range | Quantity Allocated |
| :---: | :---: | :---: |
| Mascom Wireless | $71000000-71999999$ $74000000-74299999$ $74500000-74799999$ $75400000-75699999$ $75900000-75999999$ $76000000-76299999$ $76600000-76799999$ $77000000-77199999$ $77600000-77799999$ $77800000-77899999$ | $1,000,000$ 300,000 300,000 300,000 100,000 300,000 200,000 200,000 200,000 100,000 |
| Orange Botswana | $72000000-72999999$ $74300000-74499999$ $74800000-74899999$ $75000000-75399999$ $75700000-75799999$ $76300000-76599999$ $76900000-76999999$ $77300000-77599999$ $77900000-77999999$ $78000000-78199999$ | $\begin{aligned} & \hline 1,000,000 \\ & 200,000 \\ & 100,000 \\ & 400,000 \\ & 100,000 \\ & 300,000 \\ & 100,000 \\ & 300,000 \\ & 100,000 \\ & 200,000 \end{aligned}$ |
| Botswana <br> Telecommunications Corporation Limited (BTCL) | $\begin{array}{\|l} 73000000-73999999 \\ 74900000-74999999 \\ 75800000-75899999 \\ 76800000-76899999 \\ 77200000-77299999 \end{array}$ | $\begin{aligned} & 1,000,000 \\ & 100,000 \\ & 100,000 \\ & 100,000 \\ & 100,000 \end{aligned}$ |

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

## Table 9: VoIP Numbers as of March 2022

| Service Provider | VoIP Number range |
| :---: | :---: |
| Virtual Business Network Services | $79100000-79100999$ |
| AfriTel | $79101000-79101999$ |
| Global Broadband Solutions | $79102000-79102999$ |
| Business Solutions Consultants | $79103000-79103999$ |
| Dimension Data | $79104000-79104999$ |
| OPQ Net | $79105000-79105999$ |
| Mega Internet | $79106000-79106999$ |
| Stature (OpenVoice) | $\begin{aligned} & 79107000-79107999 \\ & 79113000-79113999 \end{aligned}$ |
| Tsagae Communications | $79108000-79108999$ |
| MicroTeck Enterprises | $79109000-79109999$ |
| Microla Botswana | $79110000-79110999$ |
| Internet Options Botswana | $79111000-79111999$ |
| FDI Foneworx | $79112000-79112999$ |
| Stature (Pty) Ltd t/a OpenVoice | 79113000-79113999 |
| MTN Business Solutions | 79114000-79114999 |
| Abari Communications | $79115000-79115999$ |
| Mission Communications | $79116000-79116999$ |
| ConceroTel | $79117000-79117999$ |
| Paratus Africa | $79118000-79118999$ |
| Blue Pearl Communications T/A ROI | $79119000-79119999$ |
| Dapit Ventures T/A GCSat Botswana | $79120000-79120999$ |
| Bantu Telecom | $79121000-79121999$ |
| Paratus Africa | $79122000-79123999$ |
| Netway Pty Ltd | $79124000-79125999$ |
| Apicom Pty Ltd | $79126000-79126999$ |
| Devaki Botswana | $79127000-79127999$ |
| Orange Botswana | $79200000-79209999$ $79220000-79229999$ |
| Botswana Telecommunications Corporation Limited (BTCL) | $79210000-79219999$ |
| Mascom Wireless | $79230000-79279999$ |

Note noncoloured ranges are lincesed SAP and NFP
6.2.3 The table 9 below shows the 10 number digits active Machine-to-Machine number allocations:

Table 10: M2M Number Allocations as of March 2022

| Mobile Netork Operator | M2M Number range |
| :--- | :--- |
|  |  |
| Orange Botswana | $8900000000-8900009999$ |
|  | $8900010000-8900019999$ |
|  | $8900020000-8900029999$ |
|  | $8900030000-8900039999$ |
|  | $8900040000-8900049999$ |
| Botswana Telecommunications | $8900050000-890059999$ |
| Corporation Limited (BTCL) | $8900060000-8900069999$ |
|  | $8900070000-8900079999$ |
| Mascom Wireless | $8900080000-8900089999$ |
|  | $8900100000-890009999$ |
|  | $8900110000-8900119999$ |
|  | $8900120000-8900129999$ |
|  | $8900130000-8900139999$ |
| $8900140000-8900149999$ |  |
|  | $8900150000-8900159999$ |
| $8900160000-8900169999$ |  |
| $8900170000-8900179999$ |  |

Note ALL Allocations made in blocks of 10,000 numbers
6.2.4 The table 11 below shows the 7 number digits active Fixed Number Allocations:

Table 11: Fixed Number Allocations as at March 2022

| Number Blocks | Orange <br> Botswana | Mascom <br> Wireless | BTCL |
| :--- | :--- | :--- | :--- |
| $2 X X$ XXXX | - | 60,000 | 300,000 |
| $3 X X$ XXXX | - | 60,000 | 500,000 |
| $4 X X$ XXXX | - | 30,000 | 300,000 |
| $5 X X$ XXXX | - | 60,000 | 500,000 |
| $6 X X$ XXXX | - | 30,000 | 300,000 |
| Sub-Total | - | $\mathbf{2 4 0 , 0 0 0}$ | $\mathbf{1 , 9 0 0 , 0 0 0}$ |

## 7. CONCLUSION

7.1 The National Numbering Plan is a way of ensuring that:
7.1.1 The limited numbering resources are used prudently and efficiently and this allows for effective number management. This exercise enables customers to have access to services using numbers without undue expense and inconvenience, and to ensure that 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
7.1.2 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.

