

Belize National Numbering Plan

Public Utilities Commission – Telecommunications Sector

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2022 Version

Table of Contents

1	The 2	2022	2 Belize National Numbering Plan (NNP)	1
	1.1	Lega	al Framework	1
	1.2	Obje	ectives	1
	1.3	Defir	initions	1
2	NNP	Num	nber Categories	2
	2.1	Geog	ographic Numbers	3
	2.1.1	1	Trunk Code	3
	2.1.2	2	Destination Code	3
	2.1.3	3	Subscriber Numbers	3
	2.1.4	1	Use of Geographic Numbers	3
	2.1.5	5	Application	4
	2.2	Non-	n-Geographic Numbers (NGN)	4
	2.2.1	1	NGN Short Codes	4
	2.2	2.1.1	1 Emergency and Safety Services Short Codes	4
		2.2.1	1.1.1 Off-Net Short Codes	4
		2.2.1	1.1.2 Off-Net NG Short Codes Number	5
		2.2.1	1.1.3 Application Requirements	5
		2.2.1	1.1.4 Timeframe for handling the application process	5
	2.2	2.1.2	2 On-Net Short Codes	5
		2.2.1	1.2.1 On-Net NG Short Codes Number	6
		2.2.1	1.2.2 Application for On-Net NG Short Code Number	6
		2.2.1	1.2.3 Timeframe for handling the application process	6
	2.2.2	2	NGN Special Numbers – Domestic Freephone Service Numbers	7
	2.2	2.2.1	1 Domestic Freephone Number	7
	2.2	2.2.2	2 Prefix	7
	2.2	2.2.3	Application for a Domestic Free Phone Number	7
	2.2	2.2.4	Timeframe for handling the application process	7
	2.2.3	3	NGN Mobile Numbers	8
	2.2	2.3.1	1 Prefix	8
	2.2	2.3.2	2 Subscriber Numbers	8
	2.2	2.3.3	3 Use of Non-Geographic Mobile Numbers	8
	2.2	2.3.4	4 Application	8
	2.3	Othe	er Numbers	9
	2.3.1	1	International Mobile Subscriber Identity	9
	2.3.2	2	International Signaling Point Codes	10
	2.4	Eligik	ibility & Application Process for GN and NGN Mobile Numbers	11
	2.4.1	1	Eligibility Criteria	11
	2.4.2	2	Information Requirements	11
	2.4.3	3	Competing Requests	11
	2.4.4	1	Timeframe for handling the application process	11
	2.4.5	5	Refusal of application	12
	246	5	Dormancy Requirements	12

3	Standard Conditions for Allocation	12
4	The Belize National Numbering Plan Framework	13
	Reference Tables	
Tab	ole 1: Geographic Number General Structure	3
	ole 2: Trunk Code District Assignments	
Tab	ole 3: Emergency Codes	4
	ole 4: Off-Net Short Code General Structure	
Tab	ole 5: On-Net Short Code General Structure	6
Tab	ole 6: Free Phone General Structure	7
Tab	ole 7: Mobile Number General Structure	8
Tab	ole 8: Belize MNC Assignments	9
Tab	ole 9: Belize SANC	10

1 The 2022 Belize National Numbering Plan (NNP)

1.1 Legal Framework

Section 11 of the Belize Telecommunications Act, Chapter 229, Revised Edition 2011 requires the PUC to publish a numbering plan for Belize and make rules for the allocation and assignment of numbers to licensees.

The Belize National Number Plan (NNP) therefore sets out the policy and general guidelines to be used in the administration of all numbering resources for the telecommunications sector in Belize.

1.2 Objectives

The objective of the NNP is the management of all numbering resources in Belize that are used by present and future licencees in delivering telecommunications services to end-users throughout the country.

The NNP defines the role and responsibility of the PUC as the numbering administrator, as well as the role of the applicant and number holder.

1.3 Definitions

"Allocated" means a status of a number or a Number Block that has been assigned to an operator for a particular purpose.

"Call" means communication conveying voice and/or data, and includes where appropriate messaging services (such as SMS).

"Country code" ("CC") means the combination of one, two or three digits that identifies a specific country or countries in an integrated numbering plan or a specific geographic area. The CC for the country of Belize is 501.

"Designated" means the use of a number series or range of numbers specified for a particular purpose. Designated numbers shall be used only for a purpose specified in the Plan.

"Fixed Services" means Telecommunications services other than Mobile Services.

"Free" is a status of a number or a Number Block that is available for allocation.

"Geographic Numbers" ("GN") are numbers that consist of digits that indicate the geographic location of the Number. The use of Geographic numbers is presently limited to fixed telephony.

"International Prefix" means a digit or combination of digits added before the called number to indicate that the call is an international one. The International Prefix in Belize is 00.

"ITU Telecommunications Standardisation Sector" ("ITU-T") is a permanent organ of the International Telecommunications Union ("ITU"), the United Nation's specialised agency in the field of telecommunications. The ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardising telecommunications on a world-wide basis.

"Mobile Services" means Telecommunications services typically provided to a mobile terminal (i.e. a terminal which can be used while the user is on the move, without being restricted to an area served by one base station).

"National Destination Code" ("NDC") means a digit or a combination of digits (not including any prefix) identifying a numbering area within a country (or group of countries included in one integrated numbering plan or a specific geographic area) and/or network/service. NDC is a nationally optional code field, within the international public telecommunications numbering plan as set out in the ITU-T Recommendation E.164, which, combined with the SN, constitutes the NSN.

"National Significant Number" ("NSN") is the portion of a number that follows the CC. The NSN usually consists of the NDC followed by the SN.

"Non-Geographic Numbers" ("NGN") are numbers that consist of digits that have no relation to the geographic location of the service provided by the number.

"Number" means a string of decimal digits that uniquely identifies a subscriber or a point where a service is provided. Any identifier, use of which may conflict with use of any number, shall be used in accordance with the Plan and any other regulations of the PUC.

"Number Block" means a sequence of contiguous numbers with the same leading digits used as the basis for allocating numbers to operators. In this Plan a Number Block consists of 10,000 numbers as identified in the Plan for a specific Number Range, except in cases where the Plan explicitly states that numbers are assigned individually (in such cases a Number Block is equal to 1 number).

"Number Range" means a set of contiguous numbers of a specified or unspecified size.

"Number Series" means a set of numbers, having the same leading digit or digits.

"Principle" means a rule or requirement that governs the use, management and allocation of the national resource of numbers from the Plan.

"Protected" is the status of a number or a Number Block that is withheld from allocation and use.

"PSTN" means a Public Switched Telephone Network.

"PUC" means the Public Utilities Commission, Belize.

"Reserved" is the status of a number or a Number Block that has been reserved for future allocation to an operator.

"Schedules" are those sections of this document that detail the designations of numbers and other conditions of use specific to the Plan.

"Short Code" means a short number (i.e. a number not longer than 4 digits).

"SMS" means Short Message Service. SMS services can be provided independently of a mobile service.

"Subscriber Number" ("SN") means a number identifying a subscriber in a network or numbering area.

2 NNP Number Categories

The PUC is the established entity with the responsibility for the regulations of the telecommunications sector in Belize. The PUC has the duty of preparing and maintaining the National Numbering Plan (NNP) and allocating numbers to licenced operators in accordance with the plan.

This document details the NNP applicable to licenced operators in Belize and identifies the mandatory number categories, structures and processes applicable to all number holders.

2.1 Geographic Numbers

The Geographic Numbers (GN) are numbers that consist of digits that indicate the geographic location of the Number. The use of GN is presently limited to fixed telephony.

The PUC has adopted the ITU-T E.164 GN structure as follows:

General Structure	Country Code	Trunk Code	Destination Code	Subscriber Number
	CC		NDC	SN
Number of Digits	3	1	2	4
	501	Α	YZ	XXXX
		← 7 DIGIT GEOGRAPHIC SERVICE NUMBER →		

Table 1: Geographic Number General Structure

Where,

A = 2 to 5, 7 and 8

X = 0 to 9

Y = 0 to 9

Z = 0 to 9

2.1.1 Trunk Code

Trunk Codes, **Digit A**, are numbers associated with a geographic area of broad significance, i.e., a geographic district. Table 2 shows the Trunk (District) Code designation in Belize.

Trunk (District) Code	Geographic Area
2	Belize District
3	Orange Walk District
4	Corozal District
5	Stann Creek District
7	Toledo District
8	Cayo District

Table 2: Trunk Code District Assignments

2.1.2 Destination Code

Destination Codes, **Digit YZ**, are two (2) digit codes used to select a destination network serving the destination subscribers.

2.1.3 Subscriber Numbers

The Subscriber Numbers have four digits.

2.1.4 Use of Geographic Numbers

The GN issued shall only be used in relation to a network services or applications services for fixed telephone that terminates a call at a location in a geographic area designated for that number.

Geographic numbers shall not be issued to end-users or termination nodes outside the designated termination area.

2.1.5 Application

All applications for GN shall be for a singular Number Block and subject to the criteria and process outlined in the section titled <u>Eliqibility & Application Process for GN and NGN Mobile Numbers</u>.

2.2 Non-Geographic Numbers (NGN)

NGN numbers are numbers that do not correspond to a discrete geographical area and are assigned for services with attributes, functions or requirements that transcend discrete geographic boundaries. There are three categories of NGN:

- a) Short Codes
- b) Special Numbers (eg 0800)
- c) Mobile Numbers

2.2.1 NGN Short Codes

Short Codes are subsets of the numbering scheme and consist of a variation to the full 7-digit number to allow short dialing sequences. Where designated, Short Codes may be used for messaging services such as SMS. There are three sub-classifications for NGN Short Codes.

2.2.1.1 Emergency and Safety Services Short Codes

These Short Codes are designated for use as emergency and safety-related service Short Codes. The Short Code is allocated against a *service* (not associated with any licensee). Callers must be able to call such a code at any time from any network and at no charge to the calling party.

Table 3 identifies all approved Emergency Codes for use in Belize.

Short Code	Service	
911	Emergency Number	
922	Crime Stoppers	
966	National Marine Communication Center	
977	Police Witness Protection Program	
990	Fire Emergency Number	
999	Belize Coast Guard Emergency	

Table 3: Emergency Codes

2.2.1.1.1 Off-Net Short Codes

Off-Net Short Codes are designated for use as Short Codes, accessible from any network. All licensees shall ensure the accessibility of these Short Codes from their network.

2.2.1.1.2 Off-Net NG Short Codes Number

The number shall be four digits and follow the structure summarized below:

General Structure	Short Code Number
Number of Digits	4
	YXXX
	← 4 DIGIT SHORT CODE NUMBER →

Table 4: Off-Net Short Code General Structure

Where,

Y = 1 to 8

X = 0 to 9

2.2.1.1.3 Application Requirements

All applicants shall provide the Commission with the following information:

- a) A description of the applicable service to be accessed using the Short Code;
- b) The applicable rates for accessing the Short Code;
- c) The commencement date or intended commencement date of the service;
- d) The end date or intended end date of the service;
- e) Contractual terms governing the provision of the service;
- f) Such other information as may be relevant to support the application; and
- g) Any additional information that may be required by the PUC to process the application.

2.2.1.1.4 Timeframe for handling the application process

The PUC shall allocate the Short Code on a first-come first-served basis.

The PUC will use all reasonable endeavours to make or deny an allocation within twenty (20) calendar days following receipt of an application that contains *all* of the information required to successfully process the application. The twenty (20) day period may be exceeded where:

- a) Additional information is required from the applicant;
- b) There arises the need for consultation;
- c) Significant issues arise relating to the application that cannot be handled within the 20 day period;
- d) Where the PUC considers that an exception to the normal period is required.

2.2.1.2 On-Net Short Codes

On-Net Short Codes are designated for use as Short Codes to access services that terminate on the same network. Licensed Operators are required to hold the relevant On-Net Short Code numbering allocation

to use On-Net Short Codes. These Short Codes are primarily used for application services to end-users within the licence holder's network only. Examples include, but are not limited to, voicemail access, test numbers, and customer service support.

Access from another network is not allowed, thus the same Short Code can be assigned to another service provider.

2.2.1.2.1 On-Net NG Short Codes Number

The number shall be three digits and follow the structure provided in Table 5.

General Structure	Short Code Number
Number of Digits	3
	YXX
← 3 DIGIT SHORT CODE NUMB	

Table 5: On-Net Short Code General Structure

Where,

Y = 1 to 8

X = 0 to 9

2.2.1.2.2 Application for On-Net NG Short Code Number

All applicants shall provide the Commission with the following information:

- a. A description of the applicable service to be accessed using the Short Code;
- b. The applicable rates for accessing the Short Code;
- c. The commencement date or intended commencement date of the service;
- d. The end date or intended end date of the service;
- e. Such other information as may be relevant to support the application; and
- f. Any additional information that may be required by the PUC to process the application.

2.2.1.2.3 Timeframe for handling the application process

The PUC will use all reasonable endeavours to make or deny an allocation within twenty (20) calendar days following receipt of an application that contains *all* of the information required to successfully process the application. The twenty (20) day period may be exceeded where:

- a) Additional information is required from the applicant;
- b) There arises the need for consultation;
- c) Significant issues arise relating to the application that cannot be handled within the 20 day period;
- d) Where the PUC considers that an exception to the normal period is required.

2.2.2 NGN Special Numbers – Domestic Freephone Service Numbers

Freephone Service numbers are numbers used for a service in which a person calling the Freephone Service number bears no charge and all call charges are borne by the called party. A Freephone Service number shall be accessible from any network. All licensees shall ensure the accessibility of these Freephone Service from their network.

2.2.2.1 Domestic Freephone Number

The number shall consist of a 4-digit Prefix and a 7-digit Service Number. The applicable number structure is provided in Table 6.

General Structure	Prefix	Service Number	
Number of Digits	4	7	
	0800	YXX-XXXX	
	← 11 DIGIT FREEPHONE SERVICE NUMBER →		

Table 6: Free Phone General Structure

Where,

Y = 1 to 9

X = 0 to 9

2.2.2.2 *Prefix*

The Prefix '0800' is designated for Domestic Freephone Service Numbers.

2.2.2.3 Application for a Domestic Free Phone Number

All applicants shall provide the Commission with the following information:

- a. A description of the applicable service to be accessed using the Short Code;
- b. The commencement date or intended commencement date of the service;
- c. The end date or intended end date of the service;
- d. Contractual terms governing the provision of the service;
- e. Such other information as may be relevant to support the application; and
- f. Any additional information that may be required by the PUC to process the application.

The PUC shall allocate the numbers on a first-come first-served basis. The successful applicant shall ensure that the assigned Domestic Free Phone Number is accessible from all other network service providers.

2.2.2.4 Timeframe for handling the application process

The PUC will use all reasonable endeavours to make or deny an allocation within twenty (20) calendar days following receipt of an application that contains *all* of the information required to successfully process the application. The twenty (20) day period may be exceeded where:

- a) Additional information is required from the applicant;
- b) There arises the need for consultation;
- c) Significant issues arise relating to the application that cannot be handled within the 20 day period;
- d) Where the PUC considers that an exception to the normal period is required.

2.2.3 NGN Mobile Numbers

Mobile Numbers are Non-Geographic Numbers which are used for network or application services which allow for the mobility of the terminating device and the concept of personal association with an assigned number.

The PUC has adopted the Non-Geographic Mobile Number structure as follows:

General Structure	Country Code	Prefix	Mobile Subscriber Number
Number of Digits	3	1	6
	501	6	XX-XXXX
		← 7 DIGIT MOBILE SERVICE NUMBER →	

Table 7: Mobile Number General Structure

Where,

X = 0 to 9

2.2.3.1 Prefix

The prefix digit 6 is designated for all public mobile service providers.

2.2.3.2 Subscriber Numbers

The mobile subscriber numbers shall have six digits. There shall be no exclusivity on the use of the mobile prefix for Public Mobile Service providers.

2.2.3.3 Use of Non-Geographic Mobile Numbers

These numbers types can be used for the following services:

- 1. Public Mobile Cellular
- 2. Public Radio Paging

2.2.3.4 Application

All applications for NGN Mobile Numbers shall be for a singular Number Block and subject to the criteria and process outlined in the section titled <u>Eligibility & Application Process for GN and NGN Mobile</u> <u>Numbers</u>.

2.3 Other Numbers

The PUC is also vested with the management and control of:

- a) International Mobile Subscriber Identify (IMSI) enabling mobile terminals/users to roam among networks, domestically and internationally.
- b) International Signalling Point Codes (ISPC) used for identifying nodes within the Signalling System No. 7 networks.

2.3.1 International Mobile Subscriber Identity

The International Mobile Subscriber Identity (IMSI) enables mobile terminals/users to roam among networks, domestically and internationally, by providing a uniform and unique home network and mobile user identification that is recognizable by all conforming networks. When transmitted between the visited and home networks, the IMSI enables the exchange of subscription and billing information for the visiting mobile subscriber.

The format of the IMSI applicable to Belize is reproduced in Figure 1.

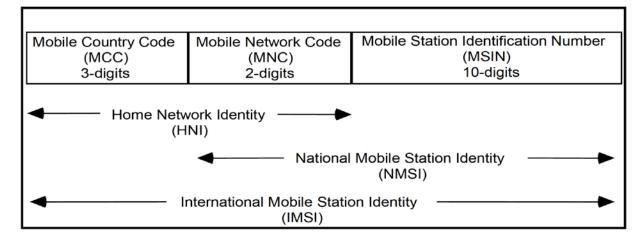


Figure 1: IMSI Format

The IMSI format in Belize is the maximum 15-digit length allowed by the ITU Recommendation E.212 *The international identification plan for public networks and subscriptions*. Each IMSI contains a Mobile Country Code (MCC), a Mobile Network Code (MNC) and a Mobile Station Identification Number (MSIN) and is in the format reproduced in Table 8.

The MCC assigned to Belize is 702.

General Structure	MCC	MNC	MSIN
Number of Digits	3	2	10
	XXX	XX	XXX XXX XXXX
	702	67	10 Digit MSIN Range - BTL
	702	69	10 Digit MSIN Range - SCL

Table 8: Belize MNC Assignments

The MNC is the segment of the IMSI directly administered by the PUC and will only be assigned to public networks offering mobility services with international roaming capability. The MSIN range is to be

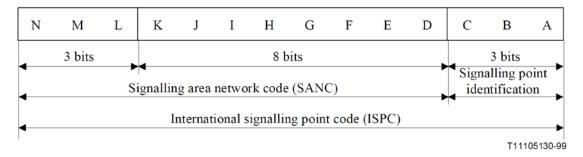
directly administered by the Licensee to which the MNC is assigned. There are two valid MNC assignments to date.

All applications for MNC assignments are to be submitted to the PUC for processing.

2.3.2 International Signaling Point Codes

Signaling Area Network Codes (SANC) are assigned to the ITU Member States by the ITU *Director of The Telecommunications Standardization Bureau* (TSB). The SANC contains 8 International Signalling Point Codes (ISPC) which may be assigned by the PUC to network operators within Belize.

International Signalling Point Codes (ISPC) are 14-bit binary codes used to establish direct SS7 signaling links and interconnection with international networks. The format of the ISPC is represented in the figure to follow:



Format of the International Signaling Point Code (ISPC)

Figure 2: ISPC Format

The 14-bit code of the ISPC is represented by three decimal numbers in the format: X-XXX-X as follows:

- a) The first decimal indicating the three (3) most significant bits (NML) with a range of 0 to 7;
- b) The second decimal indicating the following eight (8) bits (K-D), with a range of 000 to 255;
- c) The third decimal consisting of the three (3) least significant bits (CBA), with a range 0 to 8.

The combination of the field containing bits NML and bits K-D is regarded as the SANC. The three (3) bits (CBA) identify a specific signaling point when combined with the SANC and forms the 14-bit ISPC.

Belize has the following ITU SANC assignments:

Country	SANC
Belize	7-004
Belize	7-005

Table 9: Belize SANC

The PUC will assign ISPC in Belize following ITU Recommendation Q708 Switching and Signaling Specifications for Signaling System No. 7 – Message transfer part (MTP). All applications for ISPC resources are to be submitted to the PUC for processing.

2.4 Eligibility & Application Process for GN and NGN Mobile Numbers

2.4.1 Eligibility Criteria

Individual Licence holders of Fixed Public (wireline or wireless), Mobile Cellular or Public Radio Paging are eligible to apply for authorizations for the use of numbering capacity.

To be eligible, the applicant shall have met or expected to meet within the next six months a 75% utilization of their existing allocation for the same service type for number ranges. Utilization shall be calculated in accordance with the following formula:

$$utilisation(\%) = \frac{numbers\ in\ service + numbers\ in\ quarantine}{numbers\ allocated} \times 100\%$$

Refer to the section <u>Dormancy Requirements</u> for further details on dormancy requirements.

Applications shall not, in general, be made more than six months prior to the planned in-service date.

2.4.2 Information Requirements

Individual Licence holders of Fixed Public (wireline or wireless), Mobile Cellular or Public Radio Paging are eligible to apply for authorizations for the use of numbering capacity.

The following information shall be provided:

- a) Name and contact details of the applicant;
- b) Details of the current utilization of existing allocations for the same service type;
- c) Forecasted demand for the same service type over the next six months;
- d) Any additional information considered by the applicant to be relevant and in support of the application process;
- e) Any additional information that may be required by the PUC from time to time required for the processing of the application.

2.4.3 Competing Requests

Where the remaining available number ranges are limited, and more than one operator makes a request for the same number range, the PUC will allocate the range to the first operator who submits to the PUC the request for allocation of the numbers, together with a clear and reasonable plan for making use of the respective numbers.

2.4.4 Timeframe for handling the application process

The PUC will use all reasonable endeavours to make or deny an allocation within thirty (30) calendar days following receipt of an application that contains *all* of the information required to successfully process the application. The thirty (30) day period may be exceeded where:

a) Additional information is required from the applicant;

- b) There arises the need for consultation;
- Significant issues arise relating to the application that cannot be handled within the 30 day period;
- d) Where the PUC considers than an exception to the normal period is required.

2.4.5 Refusal of application

The PUC reserves the right to refuse applications for allocations of numbers to any operator that is not in compliance with the Belize National Numbering Plan. Alternatively, the PUC may grant the application not in full, or may attach specific conditions to the allocation related to the use and management of the numbering capacity allocated. Such specific conditions will be set out in writing to the applicant.

The PUC may, following consultation with the applicant, make an alternative allocation that has the potential to satisfy the applicant's requirements without conflicting with the criteria that caused the original application to be refused.

2.4.6 Dormancy Requirements

Number holders shall place a number in quarantine, for a period of sixty (60) calendar days, those numbers that are:

- a) Cancelled by the customer;
- b) Recovered (due to user inactivity);
- c) Replaced.

During this period of time the number shall not be re-assigned to any customer other than the previous customer.

3 Standard Conditions for Allocation

Any allocation granted by the PUC pursuant to an application for allocation have the following Standard Conditions, where all allocation holders are required to comply:

- The number holder shall not use the allocated numbers for any other purposes other than the purpose stated in the application;
- b) The number holder shall commence the utilization of the allocated numbers no later than (12) months after the date of the assignment; failure to commence the utilization may results in the cancellation of the authorization of the Number Block.
- c) The number holder shall take all steps necessary to ensure that the use of any allocated numbers is at its maximum;
- d) The number holder shall maintain a plan for issuing and reissuing numbers inclusive of meeting the specified number quarantine requirements;
- e) An annual utilisation report, in a format specified by the PUC, is to be provided by the allocation holder within thirty (30) days after the end of each calendar year. The report shall also include a one year and a three-year estimate of demand for significant ranges;

- f) The assignment holder shall comply with this Plan;
- g) The assignment holder shall comply with any guidelines issued by the PUC;
- h) The assignment holder shall pay any applicable fees as amended from time to time.

Allocation holders shall not sell, auction, trade or otherwise transfer any assignments granted by the PUC.

4 The Belize National Numbering Plan Framework

