

National Numbering Plan

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BHUTAN INFOCOMM AND MEDIA AUTHORITY ROYAL GOVERNMENT OF BHUTAN THIMPHU, BHUTAN

1. Preliminary

1.1 Introduction

Telecommunications numbers are limited national resource and must be managed efficiently in the overall interest of the network industry. With the introduction of large number of new telecom services and the increase in demand for numbers by subscribers, there is a need to review and harmonize numbering plans to cater to the growth of subscribers and facilitate new services for future growth. The current National Numbering Plan of Bhutan was developed in 2002 and it lacked important aspects like the conditions of use and allocation procedure. In addition the subscriber number has increased as every gadget is connected to the network. Therefore keeping this in view, the new Numbering Plan has been formulated by highlighting the conditions of use, allocation procedures and the flexibility to reserve and release the additional numbers as per the need.

1.2 Legal Basis

The Numbering Plan is issued by the Authority in accordance with the Bhutan Information, Communications and Media (BICM) Act.

1.3 Title and Commencement

The Numbering Plan shall be called as "National Numbering Plan (Plan)" and shall come into force on the 15th January 2018 corresponding to the 29th Day of Eleventh Month of Female Rooster Year.

1.4 Objective

The Numbering Plan will provide clarity on the required processes for allocation of numbers for any telecommunication service. It will set standards and clear instructions on the number allocation procedures for necessary compliance by the telecommunication operators. In summary, the Numbering plan will:

- (i) Ensure an efficient and effective management and utilization of number resources:
- (ii) Establish an effective national numbering framework in compliance with recognized international standards;
- (iii) Ensure the continuous availability of numbers to users and enable the users to use the allocated numbers responsibly;
- (iv) Promote and establish a transparent and equitable system in the allocation of numbers:
- (v) Facilitate and keep provision for the development of new telecommunication services which requires numbers;

1.5 Scope of Application

The Numbering Plan shall apply to all the licensees and users who use the number resources for any telecommunication services within the kingdom of Bhutan.

1.6 Amendments

These Plans are subject to amendment and changes in accordance with the needs and changes in national priorities, government policies and industry trends. The amendment of these Plans by way of addition, variation or repeal may be affected by the Authority.

1.7 Interpretation

The power to interpret these Plans shall be vested with the Authority who may issue such instructions as may be necessary to give effect to and implement the provisions of these Plans.

1.8 Rules of Construction

In these Plans, unless the context indicates otherwise, the masculine gender shall include the feminine gender and the singular shall include the plural and vice versa.

1.9 Definitions

In addition to the following terms, or unless the context requires otherwise, the words and terms used in these Plans shall have the same meaning as assigned in the Act and ITU-T Recommendations for Numbering;

Act means the Bhutan Information, Communications and Media Act,

Allocation means the process by which the Authority allocates the rights to use a number or block of numbers to a licensee.

Assignment means the process where the licensee assigns an individual number from an allocated block to the users when completing an individual user order for service.

Area code means the dialled identification code that uniquely identifies an exchange area or multi-exchange area,

Authority means the Bhutan InfoComm and Media Authority,

Country code means the combination of one, two or three digits identifying a specific country, countries in an integrated numbering plan,

ICT Services means the telecommunication related services provided to the customers through a telecom network,

International Prefix means 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.

ITU-T means the telecommunications sector of the international telecommunications union,

ITU Recommendations means the set of specific recommendations developed by the International Telecommunication Union for technical harmonization.

Licensee means the ICT service providers licensed by the Authority, who assigns the telecommunication numbers to its subscribers,

Line hunting means the method of distributing phone calls from a single telephone number to a group of several phone lines, specifically referring to the process or algorithm used to select which line will receive the call.

Multiple Line hunting means the feature that allows multiple telephone lines going into a business to act as a single group, called a *hunt group*. If the line called is busy, the call goes to the next available line. Only if no lines in the group are open does the calling party get a busy tone.

National Destination Code (NDC) means a decimal digit or a combination of decimal digits or an optional code field which identifies the destination network serving the destination subscriber. It performs the destination network selection function.

National Significant Number (NSN) means the number to be dialled following the country code to connect a customer in the same country but outside the same local network or numbering area,

Number means the number, sign or other mark which is used in its delivery of telecommunications services and which may be a string of decimal digits, and possibly other symbols on the handset, that uniquely indicates the public network termination point and that contains the information necessary to route the call to this termination point,

Number block means a series of numbers (usually sequential),

Numbering code means the initial dialled digits of a telephone number that identify the service,

Prefix means 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.

Service Provider means an entity licensed to provide telecom related services (basic telecom services, such as voice, or more complex value-added services) to end-users,

Subscriber number means the number allocated to a subscriber following the National Destination Code that identifies a particular subscriber in the network or numbering area,

Telecommunications means any transmission, emission or reception of signs, signals, writings, images and sounds or intelligence of any nature by wire, radio, optical or other electromagnetic systems.

2. General Conditions

- 2.1 No entity shall use the number block or assign any numbers to its subscribers without a prior allocation and approval of the Authority.
- 2.2 The numbers and codes included in these Plans shall be allocated for the exclusive use of the fixed and mobile telecommunication services.
- 2.3 The numbers and codes not specified in these Plans are prohibited to be used for any telecommunication services, or other use, unless expressly authorized in writing by the Authority.
- 2.4 No codes and prefixes other than existing allocation including the short codes shall be reserved for the service providers in this Plan. However, in the event additional codes or a prefix is required, the service provider shall provide detailed justification which is subject to approval of the Authority.
- 2.5 These Plans have been drawn up in compliance with the ITU Recommendations on numbering and in particular the ITU-T Recommendation E.164.

3. Eligibility

- 3.1 All applicants with ICT service licenses for the provision of fixed and mobile telecommunications service shall be eligible to apply for number block allocations.
- 3.2 The eligible applicants shall apply for only the allocation of number codes and block of numbers.
- 3.3 Any business, corporation and organizations shall be eligible for using the shot code (toll free) numbers in accordance with these Plans.
- 3.4 The codes or number blocks applied for allocations shall be exclusively intended for the purpose of providing telecommunications services.

4. Application Details

- 4.1 For the allocation of numbering capacity, the eligible applicant shall provide the following information to the Authority;
 - (i) Name and address of applicant,
 - (ii) Details of the ICT service licence under which it operates,
 - (iii) Purpose or intended use of numbering allocation,
 - (iv) Preferred numbering code and block,
 - (v) The dates by which the allocation is required,
 - (vi) The date of planned service to be operational,
 - (vii) Relationship with existing reservations or allocations if any,
 - (viii) Utilization of existing allocations if any,
 - (ix) A forecast of expected utilization over a period of at least three years,
 - (x) Undertaking statement that the numbers shall be used in accordance with the Plans,

- (xi) Any other information that the applicant considers necessary or appropriate to justify the application and substantiate the need for the numbers,
- 4.2 The Authority shall have the right to ask for additional information not included in the application submitted to the Authority.
- 4.3 The applicant shall indicate whether the information provided to the Authority in the application is commercially sensitive.
- 4.4 The Authority may refuse an application for an allocation of numbering capacity and if it does so, the Authority shall inform the applicant in writing with reasons.
- 4.5 The Authority may also wherever relevant, following consultation with the applicant, make an alternative allocation that has the potential to satisfy the applicant's requirements without conflicting with the criteria which caused the application to be refused.

5. Obligations of the Authority

- 5.1 The Authority shall ensure that the numbers are planned, managed and allocated effectively and efficiently.
- 5.2 The Authority shall follow the number of principles and guidelines on numbering when preparing and updating the Plans.
- 5.3 The management of the numbering plan shall be carried out in an objective, non-discriminatory, equitable, proportionate, timely and transparent manner.
- 5.4 While preparing number plan the Authority shall consider the compliance of ITU-T standards, the need of domestic networks and the provision to accommodate the future growth in the number of subscribers and services to the national system;
- 5.5 The Authority shall monitor the use of numbering capacity by the licensees to ensure that the numbers are used efficiently and effectively. For this purpose the Authority may request the licensees to furnish any information on numbers to take necessary decisions.
- 5.6 The Numbering Plans shall be reviewed from time to time and the Authority shall have the right to modify alter/relocate the numbering scheme in the Plans in order to meet the country's current and future requirements.
- 5.7 The Authority shall notify the ITU-T of national numbering, its changes and ensure that correct notification is given in the ITU-T Operational Bulletin and other information channels used by ITU-T.
- 5.8 At its discretion, the Authority may publish certain dynamic data regarding number ranges to allow licensees and other users to make more informed decisions regarding their applications for numbers.

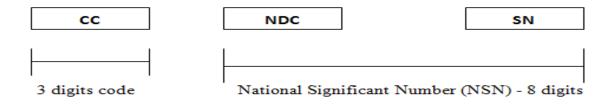
5.9 The Authority shall facilitate entry into the telecommunications market by making numbering resources available in an efficient and timely manner.

6. Obligations of the Licensees

- 6.1 The licensees shall use the numbers allocated to them in accordance with the directions, terms, procedures, and number structure stipulated in these Plan.
- 6.2 The licensees shall use numbers only for the purpose stipulated at the time of the allocation.
- 6.3 The licensees are required to return the associated numbering resource to the Authority upon the termination of their licence.
- 6.4 The licensees shall maintain an up-to-date record of the utilization ratio for each service and shall provide following reports or information to the Authority whenever required by the Authority;
 - (i) the current use of the allocation,
 - (ii) the utilization percentage of numbers which have been assigned to users.
 - (iii) forecasts of demand within significant ranges specified by the Authority;
 - (iv) any allocated numbers that have been reserved by the licensees,
 - (v) any other information requested by the Authority,
- 6.5 The service providers shall abide by the "Code of Practice for Registration of SIM cards" while assigning the numbers to its users. Any number assigned to subscribers including tourists which are inactive in status shall be assigned to the new users in accordance with the guidelines issued by the Authority.
- 6.6 The licensees shall not assign any number to an end-user or a subscriber which was not allocated by Authority.
- 6.7 The easily-remembered numbers are a scarce resource. The licensees are responsible for the management of easily-remembered number sequences. These include repeating patterns or digits and ascending or descending patterns.
- 6.8 The number blocks shall not be traded or transferred by the licensee.
- 6.9 The licensees shall not use allocated numbers in any manner contrary to these Plan's Statutes.
- 6.10 The licensees shall provide the Authority with all data necessary to conduct an audit of active numbers.
- 6.11 The licensees shall not allocate numbers from these Plan's number ranges reserved for future use if listed in Annexure I without a written authorization from the Authority.

7. National Numbering Scheme

- 7.1 These Plans is consistent with ITU-T Recommendation E.164 and other relevant ITU-T Recommendations.
- 7.2 The National Numbering Plan uses only the decimal character set 0-9 for all allocations. Letters and other non-decimal characters shall not form part of the National Significant Number (NSN).
- 7.3 The dialling procedure shall be followed as per the ITU Recommendation E.164.
- 7.4 The structure for these numbering Plans are as shown in the figure below:



CC - Country Code for geographic areas

NDC - National Destination Code

SN-Subscriber Number

- 7.5 The international prefix '00' or '+' is used for international dialling for Bhutan and is followed by the country code and the national significant number (NSN).
- 7.6 The country code allocated by ITU-T to Bhutan is '975'. This code follows the international prefix for calls made from outside the country and should be followed by the NSN of the destination within Bhutan.
- 7.7 The National Significant Number (NSN) is the eight digits number for both cellular mobile and fixed telephony services.
- 7.8 The two digit network destination/identification code (NIC) followed by the six digits subscriber number (SN) for cellular mobile numbers in Bhutan is as shown in the Annexure I.
- 7.9 The two digit network destination/identification code (NIC) followed by the six digits significant number (SN) for fixed telephony service in Bhutan is as shown in the Annexure I.

8. Short codes

8.1 Short code numbers are short digit sequences significantly shorter than the telephone numbers that are used to address messages in multimedia messaging system and short message systems of mobile network operation. It is also a toll free numbers which is a sequence of short digit number that can be dialled from any subscribed telecom network with no charges to the calling party.

- 8.2 The toll free number shall be allocated only in three-digit or four digit number.
- 8.3 The three-digit short code for toll free number shall be allocated only for the emergency and security services.
- 8.4 The four-digit short code for toll free shall be allocated for purposes other than the emergency and security services.
- 8.5 The service providers shall assign the short code number to the subscribers as per the guidelines issued by the Authority.
- 8.6 The service providers shall provide the Authority with the list of assigned short codes quarterly in a year.
- 8.7 The short code number shall be assigned on a first-come, first-served basis by the service providers observing the guidelines as attached Annexure I (C)
- 8.8 The service provider shall establish the multiple line hunting scheme distribution networks for the single short code number based on the need of its short code subscribers.
- 8.9 In the event the subscriber wishes to make its short code accessible from any other network, irrespective of single service provider which has assigned the short code, the subscriber shall purchase the same short code from other service providers to avail seamless service from any networks.
- 8.10 The Telecom service providers shall not reserve a short code number without having an actual short code number subscriber. Hoarding, brokering and warehousing of short code number is prohibited.

9. Enforcement and Penalties

- 9.1 Any entity or licensees shall be guilty of an offence if he or she uses the number blocks without prior approval of the Authority.
- 9.2 Any entity or licensees failing to comply with the conditions of these Plans shall be liable for the penalties as per the Act.

Annexure – I

A. Mobile Cellular Telecommunication Numbering Scheme for Bhutan

- (i) The MSISDN of mobile cellular number services in Bhutan has a fixed number length of eleven digits including the country code,
- (ii) The Network Destination Code (NDC)/Network Identification Code (IC) shall be the two digit number from 11 99,
- (iii) The Table A shows the allocated mobile number services in Bhutan;

Table A: Allocated Mobile Number Services in Bhutan

Particulars	Numbers	Remarks	
Country Code	975		
Network Destination Code (NDC)/Mobile Access Code	17	NDC/IC for Bhutan Telecom Limited	
	77	NDC/IC for Tashi InfoComm Limited	
Subscriber Number	$X_1X_2X_3X_4X_5X_6$	X_1 to X_6 is any number from 0 to 9.	

(iv) The dialing pattern for numbers is as shown in the table B below;

Table B: Dialing pattern for numbers in Bhutan

Dialing	Number to be dialled	Additional information
International(Incoming)	+ 975 (NDC) X ₁ X ₂ X ₃ X ₄ X ₅ X ₆	NDC is 17 for Bhutan Telecom Limited and 77 for Tashi InfoComm Limited, X= 0 9

Mobile cellular to Mobile cellular	(NDC) X ₁ X ₂ X ₃ X ₄ X ₅ X ₆	NDC is 17 for Bhutan Telecom Limited and 77 for Tashi InfoComm Limited, X=09
Fixed service to Mobile cellular	(NDC) X ₁ X ₂ X ₃ X ₄ X ₅ X ₆	NDC is 17 for Bhutan Telecom Limited and 77 for Tashi InfoComm Limited, X=09
Mobile cellular to Fixed service For example : Mobile cellular dialing Thimphu fixed number	Area code + Fixed Line Number 02 3 YYYYY	Y = 2 9

B. Fixed Telephone Service Numbering Scheme

(i) The fixed telephone services numbers in Bhutan has the numbering scheme as shown in the table C below;

Table C: Fixed Numbering Scheme in Bhutan

Country Code	Length of Area Code	Length of Subscriber Number		
+975	one digit	six digits		
Area Code	Numbering Zone	Numbering Zone		
2	Thimphu, Wangduephodran	Thimphu, Wangduephodrang, Punakha, Gasa,		
3	Trongsa, Bumthang, Zhemgang			
4	Trashigang, Lhuntse, Mongar, Trashiyangtse			
5	Chhukha, Samtse, Lhamoizingkha			
6	Sarpang, Tsirang, Dagana, Gelephu,			
7	SamdrupJongkhar, Pemagatshel			
8	Paro, Haa, Chapcha, Tsimasham, Wangkha			

Operational Area	Locality	Area Code	Subscriber Number Range	Remark
I	Thimphu	2	32XYYY	X= 0 to 9
			33YYYY	
			34YYYY	
	Simtokha	2	35XYYY	X= 0,1
	Dechencholing	2	36XYYY	X= 0,1,2,3,4
	Taba	2	365YYY	

	Khasadrapchu	2	37XYYY	[X=0,1,2,3,4,5,7,8,9]
	Basochu	2	47XYYY	X= 0,1,2,3,4,5]
	Wangdue	2	48XYYY	X= 0,1
	Punakha	2	58YYYY	
	Lobesa	2	376YYY	
	Gasa	2	688YYY	
II	Trongsa	3	52XYYY	X= 0,1,2
	Bubja	3	525YYY	
	Baling	3	526YYY	
	Tshangkha	3	527YYY	
	Dangdung	3	528XYY	X= 0,1,2
	Yebilabtsa	3	5296YY	
	Namther	3	540XYY	X= 0,2,3,8,9
	Jakar	3	63XYYY	X= 0,1,2,3,4,5
	Chumey	3	64XYYY	X= 0,1,2,3,4,5
	Zhemgang	3	74XYYY	X = 0,1,2,3,4
	Panbang	3	74XYYY	X=2,3,4,5,6,7,8,9
	Tingtibi	3	744YYY	
III	Trashigang	4	52XYYY	X = 0,1,2,3,4
	Kanglung	4	535YYY	
	Bartsham	4	53900Y	
		4	563YYY	
	Lhuntse	4	54XYYY	X=5,7,8,9
	Rangjung	4	56XYYY	X= 0,1,2
	Wamrong	4	57XYYY	X = 0,1,2,3

	Khaling	4	58XYYY	X = 0,1,2,3
	Mongar	4	64XYYY	X= 0,1
	Gelpoyshing	4	74XYYY	X= 4,5
	TrashiYangtse	4	78XYYY	X= 0,1
	Phuntsholing	5	25XYYY	X = 0,1,2,3,4,8,9
	Pasakha	5	26XYYY	X = 0,1,2,3,4
	Gedu	5	28XYYY	X = 0,1,2
	Tsimasham	5	290XYY	X=0,1
	Wangkha	5	2904YY	
	TrashiGatshel	5	2906XY	X= 0,1,2,3,4
	Samtse	5	36XYYY	X= 5,6
	Gomtu	5	37XYYY	X = 0,1,2,3
	Chargary	5	38XYYY	X= 0,1
	Sibsoo	5	382YYY	
V	Gelephu	6	25XYYY	X = 0,1,2,3,4
	Suray	6	255YYY	
	Sarpang	6	365YYY	
	Tsirang [Damphu]	6	47XYYY	X = 0,1,2,3,4
	Drujegang	6	48XYYY	X = 7,8
VI	S/Jongkhar	7	25XYYY	X = 0,1,2
	Deothang	7	26XYYY	X = 0,1,2
	Daifam / Jomotshangkha	7	264XYY	X = 0,1
	P/Gatshel	7	47XYYY	X = 0,1,2,3,4,5
	Nganglam	7	480YYY	
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		7	481XYY	X = 0,1,2,3,4,5
VII	Paro	8	27XYYY	X = 0,1
	Haa	8	37XYYY	X = 5,6
		8	373YYY	
	Haa (Damthang)	8	371YYY	
	Chapcha	8	471YYY	
		8	2407YY	
	Tsimasham	8	478YYY	
Notes				
Y=0 to 9				

C. Short code numbers (toll free)

The short code numbers for toll free service in Bhutan will have a fixed number length of three digits or four digits as follows;

(i) The three digits short codes shall be in the form of $Y_1X_2X_3$ where;

 Y_1 is from 1 to 9,

 X_1 is from 0 to 9

X₂ is from 0 to 9

(ii) The three digit short codes shall be used only for the emergency and security purposes.

(iii) The four digits short codes shall be in the form $Y_1X_2X_3$ X_4 where;

 Y_1 is from 1 to 9,

 X_1 is from 0 to 9

X₂ is from 0 to 9

X₃ is from 0 to 9

- (iv) The four-digit short code shall be allocated for purposes other than the emergency and security purposes.
- (v) Some of the short access codes for essential emergency and security services are;

Number	Service	
110	Fire	
111	Thimphu Traffic	
112	Health Help Centre / Ambulance Services	
113	Police	