



**PAPUA NEW GUINEA  
NATIONAL TELECOMMUNICATIONS  
NUMBERING PLAN**

Revision 6 – January 2016



**Document Ref. 1260.1B**

## Foreword

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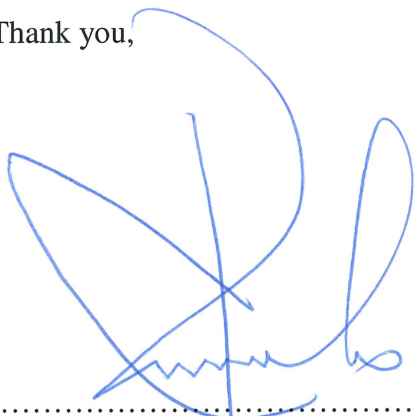
The function of developing and administering Papua New Guinea National Telecommunications Numbering Plan or the National Numbering Plan (the Plan) was mandated to PANGTEL in the previous regulatory regime. With the enactment and implementation of the *National Information and Communications Technology Act 2009* (the *Act*) the same function was mandated to the National Information and Communications Technology Authority (NICTA).

The current National Numbering Plan was developed and implemented by NICTA since 2007. The National Numbering Plan is a closed numbering plan employing eight (8) digits numbering scheme for mobile services and seven (7) digits for geographic (fixed line) services. The maximum subscriber base for mobile services is ten (10) million while the fixed line services number capacity remains at six (6) million.

NICTA maintains the same National Numbering Plan however it removes restrictions on the mobile plan and introduces carrier selection in the international component to stimulate competition with level playing field and promoting consumer welfare in compliance with the objectives and regulatory principles of the *Act*.

Notably, there has been significant demand and usage of the numbering resources and this has prompted the consequential revision to the National Numbering Plan to capture these changes. It is also anticipated that as further growth in ICT services increases, this Plan will take shape by a review process to keep the plan consistent within its intended objective and purpose. It is with great pleasure that NICTA presents to Papua New Guinea's ICT industry this revised National Numbering Plan. It is NICTA's desire that all ICT licensed operators fully comply with this National Numbering Plan so that all citizens of Papua New Guinea benefit from the implementation of this National Numbering Plan in a transparent, equitable and efficient manner.

Thank you,



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**CHARLES PUNAHA**  
CHIEF EXECUTIVE OFFICER

## Table of Contents

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FOREWORD .....	2
1. INTRODUCTION.....	4
OBJECTIVES OF THE PLAN .....	5
1. Pressures on the existing Plan .....	5
2. Reasons for revision 4 .....	5
3. Main Objectives.....	5
4. Scope .....	6
5. Role of the Regulator.....	6
2. NUMBERING PLAN OVERVIEW .....	6
1. ITU-T Recommendation E.164.....	6
2. Number Categorization by Leading Digit .....	7
3. Number Structure .....	7
4. Geographic Numbers .....	8
5. Mobile Networks.....	9
6. Global Services.....	10
7. Short Codes .....	11
8. Use of Carrier Selection Code (CSC) 14xx.....	11
9. Free-phone Service (National).....	13
10. International Free-phone Service (IFS) .....	13
11. Home Country Direct (HCD).....	14
12. Premium Rate Services.....	14
13. Universal Access Number (UAN).....	15
14. USE OF '*' AND '#' KEYS.....	15
15. Use of Alphanumeric Characters .....	15
3. MANAGEMENT AND IMPLEMENTATION OF NNP.....	16
1. Numbers Eligibility Criteria.....	16
2. Number Block for Allocation.....	16
3. Emergency Numbers.....	16
4. Number Trading .....	16
5. Premium Rate Services/Golden Numbers.....	16
4. DIALLING & ROUTING PROCEDURES .....	17
5. NUMBER PORTABILITY .....	18
1. Types of Number Portability .....	18
2. Number Portability Objectives .....	18
3. Potential implementation of Pre-Selection.....	18
6. DATA NETWORK IDENTIFICATION CODE (DNIC) .....	19
1. Data Network Numbering.....	19
7. SIGNALLING POINT CODE (SPC) .....	20
1. National Signalling Point Code (NSPC) .....	20
2. International Signalling Point Code (ISPC).....	20
8. REVIEW OF PLAN.....	20
9. COMPLIANCE.....	20
10. NEW NNP TABLE.....	21

## 1. Introduction

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- 1 The proliferation of telecommunication services and development of a wide range of modern telecommunications, multimedia services and business applications is a requirement to be supported by a range of operational frameworks. One such framework which operates as an enabler for the information age relates to numbering and electronic addressing.
- 2 Numbers and electronic addresses are necessary resources which facilitate the development of new products and services and to provide means of accessing them. As important resources, numbers must be made available in a fair, transparent and efficient manner within an acceptable time frame to the relevant users. Plans for the designation and assignment of numbers and electronic addresses need to be forward looking and to reflect not only current requirements but anticipate future requirements brought about by next generation networks and services.
- 3 The National Information and Communications Technology Authority (NICTA) maintains the view that the National Numbering Plan (Plan) should provide the ICT market in the country with a competitive advantage in the development of communications and multimedia services through clear, transparent and forward looking numbering and electronic addressing policies.
- 4 The *National Information and Communications Technology Act 2009* (the *Act*) set a platform for multiple operators and with the growing customer base, more numbers will be required to support the base and at the same time, equal opportunity should be given to all operators to access the numbering resources. Previous numbering plan for mobile services had restriction to three operators, each having an allocation of three (3) million numbers. However, it may not be workable in the fully liberalized market environment with multiple operators to have 3 million numbers with increased entry including Mobile Virtual Network Operators (MVNO).
- 5 To resolve these issues and to make the Plan forward looking, NICTA has decided to maintain the Plan for fixed numbering capacity but rewrite numbering for the mobile sector. This revised Plan sets the grounds for unhindered growth of the telecommunication sector in the country with equal operator opportunity.
- 6 The Plan will also help consumers to fully benefit from this multiple operator environment. To stimulate competition in this sector, international carrier select has been introduced in this revision.

The National Numbering Plan is aligned with various ITU-T Recommendations and International Best Practices elsewhere. The new changes are planned in such a way to ensure customers suffer minimum disruptions to number changes while the numbering capacity is enhanced to take care of the sector. The National Numbering Plan also accommodates the introduction of non-geographic services.

National levels are vacated and reserved for the new services not yet introduced in the telecommunication market. All these measures make the National Numbering Plan forward looking and futuristic in nature.

## **Objectives of the Plan**

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### ***1. Pressures on the existing Plan***

A number of factors have been taken into consideration for the revision of the Plan which includes the following key factors:

- a) an increased growth in demand for fixed and cellular mobile services;
- b) The Government Policy Decision to liberalize the telecommunication sector and to reform the ICT sector to have one converged ICT regulator in PNG;
- c) The emergence of many non-geographic services requiring distinctive numbering and services with special tariffs;
- d) Market liberalization, requiring fair and transparent access to numbering resource with adequate capacity for all the players in the market; and
- e) The need to have spare capacity for the purposes of introducing new services.

As envisaged, new technologies provides for new freedom in the design of numbering plans. Cost-benefit considerations show that this freedom should be used to make plans as user-friendly as possible.

### ***2. Reasons for revision 6***

The Plan was revised to:

- a) comply with the Act;
- b) remove or eliminate limited operator allocation constraints on the numbering resource for allocation of number ranges to new cellular mobile operators;
- c) create capacity in the Plan to facilitate introduction of new services without being restrained by the numbering capacity; and
- d) update the Numbering table

### ***3. Main Objectives***

Main objectives of the revised National Numbering Plan are to:

- a) ensure the provision of necessary numbering resources to minimize constraints on service availability and to provide a stable plan for users which facilitates current and future use of ICT services and their demand for number requirements;
- b) meet the needs of telecommunication sector in a multi-operator environment without imposing undue constraints but ensuring sufficient capacity to spare for future needs new networks and services are introduced;
- c) provide a framework for the allocation of numbering resources to various ICT service providers in Papua New Guinea;
- d) regulate supply, allocation and use of numbers;
- e) set procedures to maximize the efficiency in assignment and use of numbers;
- f) promote and protect consumer interests with the use of numbers;
- g) promote competition and innovation in ICT services with the availability of numbers;
- h) minimize disruption to existing subscribers due to constant moving of numbers; and

- i) comply with the provisions of the Act.

**4. Scope**

The National Numbering Plan provides for set of rules and procedures for the assignment of number ranges for fixed and mobile network services in PNG. The National Numbering Plan further describes the assignment of numbers for access to emergency services, customer services and National Intelligence Network based special services such as Free-phone, Premier Rate Services, etc. The National Numbering Plan follows ITU-T Recommendations E.164.

Further, application procedure and eligibility requirements, assessment procedure, number assignment or refusal, fee charged and application forms for number assignment are covered under another document called “Telecommunication Numbering Rules and Guidelines”

**5. Role of the Regulator**

- 1) NICTA is empowered by the Act to develop and administer the National Numbering Plan in consultation with the relevant stakeholders. NICTA has a duty to ensure that the number allocation process is equitable, fair and transparent to provide a ‘level playing field’ to all players in the sector.
- 2) NICTA, in consultation with all the relevant ICT stake holders, will review the National Numbering Plan, from time to time, to ensure its continued relevance. National levels reserved for future will be allocated to new services and networks as these services become available.

**2. Numbering Plan Overview**

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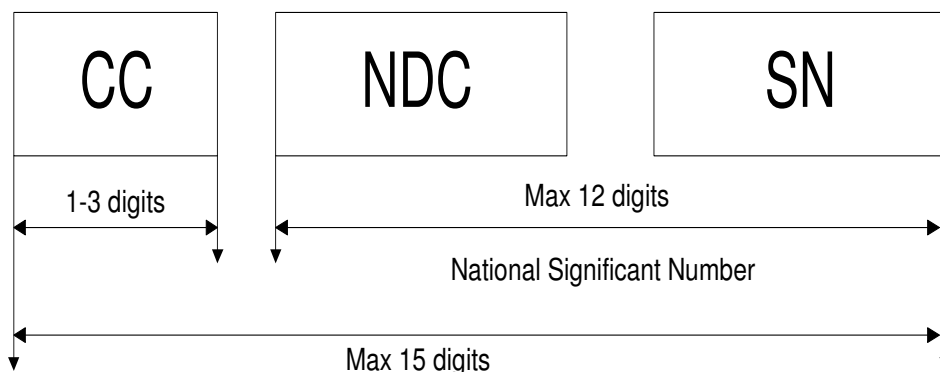
**1. ITU-T Recommendation E.164**

The International Telecommunication Union (ITU) document ITU-T Recommendation E.164 *Public Telecommunication Numbering Plan* as shown in *Figure 1* specifies the structure of the international public telecommunication number to consist of:

The country code (CC), which indicates the destination country;

The national destination code (NDC), which is used to indicate a particular area within a country; and

The subscriber number (SN).



**Figure 1: ITU-T Recommendation E.164 Numbering Structure**

The first digit of the country code is the zone code. Since the world is divided up into nine zones, each country belongs to a zone. PNG is in the Australasian Zone, which is assigned zone number of ‘6’. One or two digits are added to the zone number to produce the country code. PNG has a zone number of ‘6’ and two additional country code digits ‘7’ and ‘5’ are added to give the country code of ‘675’.

### **2. Number Categorization by Leading Digit**

- a) Numbers are assigned to various services according to the leading digit. The designation of numbers is such that the first digit of the number indicates type of service offered or the geographic area concerned.
- b) International Direct Dialling is aligned with ITU-T Recommendation E.164
- c) Following table displays assignment of leading digit to various services and areas

**Table 2.1: Number Allocation by Leading Digits**

<b>Leading Digit</b>	<b>Number of digits for code or subscriber number</b>	<b>Geographic Area/ Services</b>
0	2 digits	IDD Access
1	3 – 7 digits	Emergency, Short Codes, Customer Services, PRS etc.
2	7 digits	IP based Services and Networks & VSAT networks
3	7 digits	Geographic Numbers - NCD and Central regions
4	7 digits	Geographic Numbers - MOMASE region
5	7 digits	Geographic Numbers - Highlands region
6	7 digits	Geographic Numbers - Southern region
7	8 digits	Cellular Mobile Services
8	7 digits	Reserved for future national use
9	7 digits	Geographic Numbers - Islands region

### **3. Number Structure**

The National Numbering Plan is purely numeric.

- a) All geographic numbers are 7 digits long while mobile numbers are 8 digits long.
- b) Leading digits “3, 4, 5, 6 and 9” signify geographic numbering area where the country is divided into five broad geographic areas, including National Capital District (NCD). Each destination, in such a case, with seven digit numbering scheme can hold a theoretical maximum of one million customer base.
- c) No separate range is assigned to ISDN and normal seven digits PSTN number is assigned to ISDN subscribers including the ADSL subscribers.
- d) Leading digit 7 is assigned to mobile services. Employing the eight digits numbering scheme a maximum of ten million numbers can be provided in the mobile service.
- e) All numbers starting with leading digits 2 are assigned to IP based services and VSAT services. With a seven digit scheme IP based services and VSAT services can hold up to one million numbers.

- f) Leading digit 8 is reserved for future use.
- g) International Access code 00 is required to be dialled before dialling any international subscriber number. For example, if one makes a call to Australia he or she will dial 00+61+ NDC in Australia + subscriber number in Australia.
- h) National Access Code 0 is not be implemented to minimize subscriber dialling.
- i) Carrier Selection Code (CSC) is 14XX where XX = 00 to 99 is the carrier identification code. When callers wish to select a carrier of their choice, they will first dial 14XX before dialling the subscriber number. Refer to more description on CSC under section 7 (Short Codes).

#### 4. Geographic Numbers

The current seven digits numbering scheme is retained with some minor re-arrangements to ensure conformity to geographic numbering scheme. Papua New Guinea is divided into five regions and therefore the geographic numbers are allocated accordingly. Following table depicts allocation of geographic numbers according to first leading digit.

**Table 2.2: Allocation of Geographic Numbers**

Region	NDC+	Length of SN	Total number of digits
NCD	3X+	5 digits	7 digits
MOMASE region	4X+	5 digits	7 digits
Highlands region	5X+	5 digits	7 digits
Southern region	6X+	5 digits	7 digits
Islands region	9X+	5 digits	7 digits

The National Numbering Plan provides a total of seven million geographic numbers, including the reserved codes 2xxxxxx, and 8xxxxxx, to be shared between all licensed ICT operators.

##### *i) Geographic Number Structure*

Current seven digit geographic numbering scheme will be retained. Following table depicts PSTN number structure.

7 digits	
3 digits	4 digits
National Destination Code (NDC)	Subscriber Number
RXX	XXXX

Where R is the leading digit that denotes region above and X= 0-9



## 5. Mobile Networks

The current eight digit mobile plan using leading digit 7 exclusively for mobile services remains unchanged except the three operator allocation scheme is removed in this revision. Mobile numbers will be assigned in blocks of 100,000 numbers and allocation will be made on a first come basis. Mobile number Allocation including existing operator allocation is displayed in the table below.

**Table 2.3: Mobile Number Allocation**

Code 7x	Length of SN	Cellular Mobile Network	Total number
70xxxxxx	8 digits	Digicel PNG Limited	1 million
71xxxxxx	8 digits	Digicel PNG Limited	1 million
72xxxxxx	8 digits	Digicel PNG Limited	1 million
73xxxxxx	8 digits	Digicel PNG Limited	1 million
74xxxxxx	8 digits	Digicel PNG Limited	1 million
75xxxxxx	8 digits	Bemobile PNG Limited	1 million
76xxxxxx	8 digits	Bemobile PNG Limited	1 million
77xxxxxx	8 digits	Telikom PNG Limited	1 million
78xxxxxx	8 digits	Telikom PNG Limited	1 million
79xxxxxx	8 digits	Digicel PNG Limited	1 million

To access a mobile network one has to dial a Mobile Network Access Code (MNAC) before dialling the called mobile subscriber number.

Allocation of MNAC is as shown in Table 2.4 below.

**Table 2.4: Allocation of Mobile Network Access Codes**

Mobile Network	Access Code
Bemobile PNG Limited	01
Telikom PNG Limited	02
Digicel (PNG) Limited	03

Note: MNACs are not strictly part of the mobile numbering and therefore all must ensure that the MNACs are not passed through the mobile network. As this is a future plan and as such for implementation to take effect a full consultation with all or between the carriers must eventuate.

### *i) Mobile Number Structure*

8 digits	
2 digits	6 digits
Network Access Code (NAC)	Mobile Subscriber Number
7C	XXXXXX

Where C = 0-9, Carrier Code and X = 0-9

### *ii) International Mobile Subscriber Identity (IMSI) Structure*

IMSI (Max of 15 digits)		
3 digits	2	Max of 10 digits
MCC	MNC	MSIN
537	01 – 03	61 6765432 (example)

MCC: Mobile Country Code for PNG is (537)

MNC: Mobile Network Code for PNG (Bemobile 01, Telikom 02, Digicel 03)

MSIN: Mobile Subscriber Identification Number

IMSI: International Mobile Subscriber Identity

## **6. Global Services**

International Public Telecommunications Number for Global Services as shown below is composed of a variable number of decimal digits arranged in specified code fields. The code fields are the Country Code (CC) and the Global Service Number (GSN) with the total of 15 digits. National and International prefixes are not part of International Public Telecommunications Number for Global service. Global numbers may be used for mobile services and radio paging services.

Max. 15 digits	
3 digits	Max 12 digits
CC	GSN

Where CC: the country code,

GSN: Global Service Number

### *i) International Public Number for Networks*

International Public Telecommunications Number for Networks as shown below is composed of a variable number of decimal digits arranged in specified code fields. The code fields are the Country Code (CC), the Identification Code (IC) and the Subscriber Number (SN) with a total of 15 digits. National and International prefixes are not part of International Public Telecommunications Number for Networks.

Max. 15 digits		
3 digits	1 - 4 digits	Max 15 - (n+x)
CC	IC	SN

Where CC: the country code,  
 IC: Identification Code for the network,  
 SN: Subscriber Number,  
 n: number of digits in the country code,  
 x: number of digits in the identification code

### 7. Short Codes

Short codes are numbers starting with leading digit “1”. These codes are allocated for providing special services to customers. These services include calls for operator assistance, service enquiry, voice information, emergency services and IN services. Number assignments in the level ‘1’ range are rationalised such that similar ranges of numbers are used for similar services. A summary of the Level ‘1’ Short Codes is shown in the following table.

**Table 2.5: Short Codes, Free-phone & PRS Number Allocation**

Name of Service	Short Code	Number of Digits
Test Calls	10X	3 digits
Emergency Services (Fire, Police, Ambulance etc.)	11X	3 digits
Access Code (VMS, Calling Cards )	12X	3 digits
Universal Access Code	13X	3 digits
Carrier Selection Code (one hundred codes)	14XX	4 digits
Customer Services	15XX	4 digits
SMS	16XX	4-7 digits
Reserved for future use	17XX	4 digits
Free-phone: 180, ISP Access:188	18X	3-7 digits
PRS :190, Incoming HCD:1918 plus 5 digits	19XX	3-4 digits

### 8. Use of Carrier Selection Code (CSC) 14xx

Carrier Selection means that end-users can make telephone calls via other network operator’s network. Carrier selection promotes competition on the retail markets for telephone services as providers do not have to invest in access networks. Instead alternative providers can focus on the less cost-extensive operation of conveyance networks.

There are two variants of carrier selection (CS), namely carrier pre-selection (CPS) and call-by-call selection (CCS).

CPS is a mechanism that allows end-users to select, in advance, alternative communication providers (CS-providers) to carry their calls. This is done without having to dial a prefix or install any special equipment (e.g. auto-diallers) at their premises. If an end-user does not decide pro-actively to be pre-selected to an alternative CS-provider, he/she will typically stay pre-selected to the network operator who also provides him/her with access to the public telephone network (i.e. in most cases the incumbent; “selection by default”).

With CCS the end-user can overwrite its pre-selection to a specific CS-provider by dialling carrier selection code (“CS-code”) of an alternative CS-provider before the actual telephone number.

#### ***i) International Carrier Selection (ICS)***

Since competition was introduced in the mobile sector in 2007, Papua New Guinea had two International Gateway Service (IGS) providers, namely Digicel (PNG) Ltd and Telikom PNG Ltd. For four years consumers in PNG were denied their natural right to make a choice between the two IGS providers due to regulatory and operator restrictions. NICTA, on the release of this document once approved, shall implement ICS to stimulate competition and promote consumer welfare in compliance with the objectives of the Act.

#### ***ii) Rules and Guidelines on ICS***

1. NICTA shall allocate all existing licensed IGS provider with an ICS identifier and each IGS provider shall ensure that its ICS identifier is made known to the general public. Allocation of new ICS identifiers to new IGS providers shall be made upon application using approved NICTA CSC application form.
2. All IGS providers shall ensure that ICS identifiers for other IGS providers are appropriately programmed into their respective networks for seamless operation.
3. All subscribers, existing or new, must be given all the opportunity to select their IGS provider of choice.
4. To access an IGS provider of choice one must first dial the ICS identifier of that network before dialling the country code and the national significant number of the called country. For example, if one wants to call a subscriber in Australia using Telikom PNG gateway, he/she shall dial 1401 (Telikom PNG allocated ICS identifier) before dialling 61 (Australia country access code) followed by the area code and the subscriber number in Australia.
5. International access code 00 will only be used when one uses its default network to access IGS. For example if a subscriber connected to Telikom PNG network wants to make an IDD call to Australia, using Telikom PNG gateway, he/she shall dial 00 followed by 61 (country code for Australia) + area code and subscriber number in Australia.
6. No addition fee, except normal IGS, shall be charged for any subscriber accessing other IGS provider from its default network.
7. IGS charges can be on a pre-paid or post-paid basis. All operators must implement pre-paid three (3) months after the release of this revised National Numbering Plan. Post-paid shall be implemented on an operator-to-operator agreement to be approved by NICTA.
8. NICTA shall charge a one-off application fee of K100.00 and processing fee of K500.00 upon allocation of CSC. NICTA shall also charge an annual administration fee of K100.00 for every CSC allocation.

CSC Allocation to all licensed operators is tabulated in the following table;

**TABLE 2.6 CSC Allocation Table**

<b>CODE</b>	<b>ASSIGNED TO OPERATOR</b>	<b>COMMENTS</b>
1401	Telikom PNG Gateway	Existing gateway
1402	Digicel Gateway	Existing gateway
1403	Bemobile gateway	Existing gateway
1404	Spare	
1405	Spare	
1406	Spare	
1407	Spare	
1408	Spare	
1409	Spare	

***9. Free-phone Service (National)***

- a) '180' numbers are toll free service numbers starting with '180'. These are seven digit numbers used to offer local toll free service.
- b) The numbers take the form of '180' access code + four digit virtual number. The full number string (e.g. 180 4321) is not a physical number used to identify a particular subscriber line. Rather, the number is mapped to a real geographic or mobile number at the Intelligent Network (IN) so that calls may be routed to the subscriber using the geographic or mobile number.
- c) NICTA treats the National Numbering Plan for '180' numbers as a separate numbering plan from geographic and mobile numbers. This means that the '180' numbers (e.g. 180-5678) and the equivalent geographic or mobile numbers (e.g. 5678) can be assigned to different licensees and used by different entities.

***10. International Free-phone Service (IFS)***

- a) International Free-phone Service (IFS) enables an IFS customer in one country (host country) to be assigned one or more special telephone numbers which allow IFS callers in another country to call the IFS customer free of charge. All service and call-related charges are paid by the IFS customer.
- b) An IFS access provider is a recognized operating company in the country of origin of the call which is responsible to ensure the establishment of access to the international free-phone number in the host country.
- c) An IFS provider is a recognized operating company in the host country which provides the International Free-phone Service to the IFS customer and is responsible for all relations with the IFS customer concerning the service.

- d) An IFS customer is the individual or entity in the host country that obtains an International Free-phone Service from an IFS service provider, and is responsible for payment of all charges due to that IFS service provider.
- e) The International Free-phone Service is provided through bilateral agreement between IFS providers and IFS access providers.

Following is the number structure for outgoing IFS from PNG:

12 digits			
3 digits	1 digit	1 to 3 digits	5 to 7 digits
Access Code	International Identifier (ID)	Country Code	Subscriber Number
180	8	C or CC or CCC	SXXXXX or SXXXXXX

### ***11. Home Country Direct (HCD)***

Home Country Direct (HCD) is a feature of international telephone service which enables a caller in one country to access the international operator of his home country using a non-chargeable number for the purpose of placing an international call to his home country. HCD involves a two-stage international call and will require the HCD service provider to have a bilateral agreement in place with the service access provider.

- a) The access number is a non-chargeable number.
- b) Home Country Direct has the following number structure

12 digits			
3 digits	1 digit	1 to 3 digits	2 to 3 digits
Access Code	International Identifier (ID)	Country Code	Network Identifier
180	8	C or CC or CCC	SX or SXX

- c) HCD Calls are completed within PNG by dialling 180 plus XX for the destination country operator in order to place an international call.

### ***12. Premium Rate Services***

Premium Rate Service (PRS) enables an Information Service Provider to be assigned one or more premium rate numbers which allow the callers to access information provided by the Information Service Provider.

- a) A Premium Rate number is a number dialled by a caller to obtain a connection to an Information Service Provider. The numbers take the form of '190' access code plus four to seven digit virtual number.
- b) The Premium Rate is a charge over and above the standard call charge, established by the licensee and approved by NICTA for the access to an Information Service Provider.
- c) PRS shall be provided through a bilateral agreement between the licensee and an Information Service Provider, both facility based operators.

- d) Full digit string for a Premium Rate number is not physical but a virtual Geographic number, Mobile number or relevant Premium Rate Service is mapped at the intelligent network against Premium Rate number assigned to a PRS subscriber.
- e) The Premium Rate Number shall be structured in such a way to denote the tariff rate to be charged to the caller.
- f) The PRS service provider shall be a facility based operator.

**13. Universal Access Number (UAN)**

Universal Access Number is a virtual number which mapped against a normal PSTN number over the intelligent network. A business organization with its offices spread all over the country can get one universal access number and get its office numbers mapped in all the cities against this one number. Any entity trying to reach the company anywhere in the country needs to dial UAN.

**i) Structure of UAN**

Following is the structure of Universal Access Number

9 digits	
3 digits	6 digits
Access Code	Assigned Number
113	XXXXXX

Where X= 0-9

**14. USE OF ‘\*’ AND ‘#’ KEYS**

- a) Apart from the digits ‘0’ to ‘9’ on the keypads of the current multi frequency tone dialling telephones, there are two remaining dial buttons ‘\*’ and ‘#’. These keys are presently widely used in paging services and the activation and deactivation of various value-added services such as call transfer, call waiting etc.
- b) The use of these codes for value added services should be switch-based.
- c) These codes should terminate at the local switch (or nearest switch in the case of Radio Network) connected to the subscriber unit and should not be passed from one switch to another.
- d) The use of such codes should not cause conflict to the National Numbering Plan including the PSTN/Mobile/Paging number ranges.

**15. Use of Alphanumeric Characters**

Alphanumeric characters are not used in the National Numbering Plan.

NICTA may, when the market is ready, issue separate rules for the standardization of alphanumeric keys as recommended by the ITU.

### **3. Management and Implementation of NNP**

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#### ***1. Numbers Eligibility Criteria***

- a) All licensees in Papua New Guinea providing ICT services are eligible to apply to NICTA for allocation and assignment of relevant number blocks.
- b) Licensees shall use the numbers assigned to them, in accordance with directions, guidelines and principles set by NICTA in the “Rules for Number Assignment”.
- c) No licensee shall be entitled to ownership of any number or numbers assigned to that licensee or to any customer thereof.

#### ***2. Number Block for Allocation***

- a) The number block sizes for allocation to a licensee are laid out in the “Rules and Guidelines for Number Allocation”.
- b) If a number block size has not been mentioned for allocation of a type of number, then NICTA may determine, in writing, a number block size that is appropriate for the type of number.
- c) No new numbers will be allocated to existing licensees until a licensee’s utilization of existing capacity for the relevant allocated number range has reached 50%.

#### ***3. Emergency Numbers***

Currently all emergency (police, fire and ambulance) numbers are routed to their respective emergency call service centres via Telikom PSTN. This status quo will be maintained until an Emergency Numbering policy is formulated by all stakeholders. All mobile service providers shall ensure that the GSM Association emergency number 112 is routed to the nearest police station in all major cities of Papua New Guinea.

#### ***4. Number Trading***

All telecommunication service numbers are the property of NICTA and no licensee shall trade numbers.

#### ***5. Premium Rate Services/Golden Numbers***

In the telecommunications industry, golden numbers may attract premium rates because they are easy to remember. Licensees shall notify NICTA submit in writing the status and issuance of any golden numbers that fees have been charged, within the allocated numbers block every six months. NICTA shall update its database on allocation of golden numbers. NICTA may recover its reasonable costs of administering golden numbers through a fee of not more than 5% of the price charged by a carrier for a golden number.

NICTA shall regulate fees charged to consumers for the use of golden numbers by carriers and service providers.



#### **4. Dialling & Routing Procedures**

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The dialling and routing procedures for calls originating within PNG from fixed or mobile customers are as follows:

- 1 Local calls are completed by dialling the seven digits fixed subscriber number ABXXXXXX or eight digits mobile number 7XXXXXXXX. All local calls must be routed when the first three leading digits are dialled. For example when dialling a subscriber number 325 1234, the originating network must route the call when the first three leading digits 325 are dialled.
- 2 National trunk calls are completed by dialling seven digits PSTN subscriber number or two digits Mobile Network Access code plus eight digits mobile subscriber number. All national trunk calls must be routed only when three leading digits are dialled. For example when dialling a Lae subscriber number 472 1234 from NCD, the originating network must route the call only when the three leading digits 472 are dialled.
- 3 International calls, using the network you have subscribed to, are completed by dialling the prefix “00” followed by the country code and the national significant number in the called country. All international calls are routed as soon as the country code of the called country is dialled.
- 4 International calls, using a CSC to select another international carrier of choice, are completed by dialling the CSC for the chosen international carrier followed by the country code and the national significant number in the called country. All international calls are routed as soon as the country code of the country called is dialled.
- 5 Calls to other networks in PNG are completed by dialling the subscriber number of that network.
- 6 Calls to the paging networks and voice mail in the PNG are completed by dialling the access code of that network plus the subscriber number.
- 7 From overseas international networks calls are completed by dialling the international prefix of the originating country followed by the country code (675) and the National Significant Number of PNG.

## **5. Number Portability**

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Number portability is a facility whereby telephone customers fixed line and mobile can keep their numbers when changing from one network service provider or location or service type to another. Number portability is believed to promote competition.

The Telecommunications Act and Bylaws, around the world, encourage number portability to prepare ground for a healthy competition in telecommunications market. Number portability empowers residence and business customers to choose new service providers, services and locations while retaining their existing telephone numbers.

Number portability has stimulated competition amongst operators in some countries, while in others implementation hurdles have minimized the impact.

### ***1. Types of Number Portability***

There are three types of number portability, namely service provider portability, service portability and location portability.

#### ***i) Service provider portability***

Service provider portability enables the end user to retain the same number when changing from one service to another. Sub-types include:

- For fixed telephony
- For mobile telephony

#### ***ii) Service portability***

Service portability is the ability of the user to retain their existing telephone number without impairment of quality, reliability or convenience when changing from one type of service to another, e.g. from PSTN to ISDN, provided by the same service provider

#### ***iii) Location portability***

Location portability is the ability for an end user to retain the same fixed telephone number, without impairment of quality, reliability or convenience when moving from one physical location to another.

Location portability will allow customers to keep their fixed telephone numbers when they move to another geographic location outside of their original exchange area.

### ***2. Number Portability Objectives***

Key objectives of Number Portability are:

- To stimulate competition amongst operators, both fixed and mobile, consumers are allowed to switch operators while maintaining their own number (service provider portability)
- To stimulate competition amongst operators, consumers are allowed to move location and retain their existing number (geographic portability for fixed lines)

### ***3. Potential implementation of Pre-Selection***

Pursuant to Section 188 of NICT Act 2009, NICTA shall hold a public enquiry to identify the cost benefits and analyse the potential implementation of pre-selection in PNG at such a time determined by NICTA.

## 6. Data Network Identification Code (DNIC)

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### 1. Data Network Numbering

#### i) Basic Principles and Guidelines

- a) Data numbering plan shall apply only on the Public Switched Data Network (PSDN)
- b) Numbering plan for data shall be consistent with the international numbering plan described in ITU Recommendation X.121 and X. 122.
- c) Data numbering structure shall allow the destination number to be transmitted by a terminal, for addressing purposes, to the data network to which the destination terminal is connected.
- d) The international data number is used to identify a country, a particular network, if several data networks exist in the same country, and specific data terminal equipment/data circuit-terminating equipment (DTE/DCE) interface on that network.
- e) A national data number assigned to a DTE/DCE interface should be unique within a particular national network. This national data number should form part of the international data number which should also be unique on a worldwide basis.
- f) The Data Numbering should make provision for the inter-working of data terminals on public data networks with data terminals on public telephone, mobile, telex networks and on Integrated Services Digital Networks (ISDNs), Asynchronous Digital Subscriber Line (ADSL), WiFi and WiMax.
- g) The numbering plan for inter-working between PSTN and PSPDN shall be in accordance with ITU-T recommendation E.166/X.122
- h) The ten digit numeric character set 0-9 should be used for numbers (or addresses) assigned to DTE/DCE interfaces on public data networks. This principle should apply to both national and international data numbers.

#### ii) Data Network Identification Code (DNIC) Structure

The DNIC shall consist of four digits as follows:

4 digits	
3 digits	1 digit
Data Country Code (DCC)	Network Code (NC)
ZXX	X

Where Z = 2-7 (for country or geographic DNIC), and

X= 0-9 (if Z = 1, the DNIC identifies a public mobile satellite system or global public data network)

- 1) The First three digits (ZXX) shall always identify the country and the fourth digit (X) shall identify a specific data network in the country.
- 2) The DCC assignment is made by ITU-T and the network code assignment will be made by NICTA and will be notified to the ITU-T.
- 3) Data Network Identification Code for Papua New Guinea is XXX (2-7) and for PNG Telikom it is X=2.

### ***Data Number Structure\****

International Data Number (Maximum of 14 digits)		
Data Network Identification Code		Network Terminal Number
DCC	NC	NTN
3 digits	Max of 11 digits	

Where Prefix is “0”, DCC for PNG is “xxx” and NC for PNG Telikom is “2”.

- 1 The Network Terminal Number (NTN) should consist of the full address that is used when calling the data terminal from within its serving public data network.
- 2 The data numbers shall have a maximum length of fourteen digits according to ITU-T recommendation X.121 and X.122.
- 3 The limit of fourteen digits specified above applies exclusively to the international data number information. Adequate register capacity should be made available at data switching exchanges to accommodate the above digits as well as any additional digits that might be introduced for signalling, or other purposes.

## **7. Signalling Point Code (SPC)**

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### ***1. National Signalling Point Code (NSPC)***

The code used in public telephone networks using the ITU-T Recommendation on Signalling System Number 7 (known as CCS 7). Telikom, Bemobile and Digicel shall declare to NICTA NSPCs for all its national exchanges immediately after release of this plan which can be used by all carriers for signalling purposes between all networks.

### ***2. International Signalling Point Code (ISPC)***

The code used in international telephone networks using the ITU-T Recommendation on Common Channel Signalling No.7 (known as CCS 7). International Signalling point codes are allocated by ITU-T (5-074 and 5-075 for PNG).

## **8. Review of Plan**

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This numbering plan shall be reviewed every two years or as may otherwise be necessary to meet any new demands.

## **9. Compliance**

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All licensees shall comply with this numbering plan and rules and procedures set out in here and the Rules and Guidelines. Non-compliance may result in imposing penalties set out in the NICT Act 2009.

## 10. New NNP Table

TABLE XX: NEW PNG NATIONAL TELECOMMUNICATIONS NUMBERING PLAN – REVISION 6 (2016) NUMBERING SCHEME (7 digits geographic & 8 digits mobile)

	0	1	2	3	4	5	6	7	8	9
0	IDD									
1	OPERATOR CODES	EMERGENCY CODES	VMS, PCC,	Spare	CARRIER SELECT CODES	IODC	SMS	Spare	FREE PHONE, ISP	PRS, HCD
2	VoIP	IP SERVICES	IP SERVICES	IP SERVICES	IP SERVICES	IP SERVICES	IP SERVICES	TELIKOM VSAT	IP SERVICES	IP SERVICES
3	PSTN NCD assigned	PSTN NCD assigned	PSTN NCD assigned	PSTN NCD NOT USED	PSTN NCD NOT USED	PSTN NCD NOT USED	PSTN NCD NOT USED	PSTN NCD NOT USED	PSTN NCD NOT USED	PSTN NCD NOT USED
4	PSTN MOMASE NOT USED	PSTN MOMASE NOT USED	PSTN Madang Assigned	PSTN MOMASE NOT USED	PSTN MOMASE NOT USED	PSTN Sepik Assigned	PSTN MOMASE NOT USED	PSTN Morobe Assigned	PSTN MOMASE NOT USED	PSTN MOMASE NOT USED
5	PSTN HIGHLANDS NOT USED	PSTN HIGHLANDS NOT USED	PSTN HIGHLANDS NOT USED	PSTN HIGHLANDS Assigned	PSTN HIGHLANDS Assigned	PSTN HIGHLANDS NOT USED	PSTN HIGHLANDS NOT USED	PSTN HIGHLANDS NOT USED	PSTN HIGHLANDS NOT USED	PSTN HIGHLANDS NOT USED
6	RESERVED for future use	RESERVED for future use	PSTN Oro Assigned	RESERVED for future use	MP, Gulf , Tabubil & Kiunga	RESERVED for future use	RESERVED for future use	RESERVED for future use	RESERVED for future use	RESERVED for future use
7	Digicel***	Digicel***	Digicel***	Digicel***	Digicel***	Bemobile*	Bemobile*	Telikom PNG**	Telikom PNG**	Digicel***
8	RESERVED for future use	RESERVED for future use	RESERVED for future use	RESERVED for future use	RESERVED for future use	RESERVED for future use	RESERVED for future use	RESERVED for future use	RESERVED for future use	RESERVED for future use
9	PSTN ISLANDS NOT USED	PSTN ISLANDS NOT USED	PSTN ISLANDS NOT USED	PSTN ISLANDS NOT USED	PSTN ISLANDS NOT USED	PSTN ISLANDS NOT USED	PSTN ISLANDS NOT USED	PSTN ISLANDS assigned	PSTN ISLANDS assigned	PSTN ISLANDS NOT USED

\*Bemobile assigned code(s) 76xxxxxx and 75xxxxxx

\*\*Telikom assigned code(s) 77xxxxxx and 78xxxxxx

\*\*\*Digicel assigned code(s) 70xxxxxx, 71xxxxxx, 72xxxxxx, 73xxxxxxx, 74xxxxxx and 79xxxxxx

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