



**National Information & Communications
Technology Authority**

CONSULTATION PAPER

ANNUAL NUMBERING ADMINISTRATION FEE

August, 2024

Table of Contents

- 1. Guidelines on Responding to this Consultation**
 - 1.1 Comments and Feedback
 - 1.2 Submission Details
 - 1.3 Confidential Information
- 2. Background**
 - 2.1 Establishment of NICTA
 - 2.2 NICTA's Mandate and Functions
 - 2.3 Regulatory Basis for Fees
 - 2.4 National Numbering Plan
 - 2.5 History of Numbering Resource Fees
 - 2.6 Industry Growth and NICTA's Capacity Building
- 3. Numbering Resource**
 - 3.1 Definition and Role
 - 3.2 International Harmonization
 - 3.3 NICTA's Role in Numbering Administration
 - 3.4 Role of Numbering in ICT Policy
- 4. Numbering Assignments**
 - 4.1 Types of Numbering Resources
 - 4.2 Categories of Numbering Resources
 - 4.3 Current Numbering Assignments
- 5. Current Fees and Considerations**
 - 5.1 Overview of Previous Practices
 - 5.2 Funding through Spectrum Fees
 - 5.3 Industry Growth and Increasing Costs
 - 5.4 Regulatory Pressures and Industry Changes
- 6. The Annual Numbering Fee**
 - 6.1 Legal Framework for Charging Fees
 - 6.2 Fee Exemptions
 - 6.3 Reduced Rate Charges
- 7. Fee Determination and Proposal**
 - 7.1 Need for an Annual Numbering Fee
 - 7.2 Key Considerations for the Fee Proposal
 - 7.3 Categories of Numbering Fees
 - 7.4 Proposed Fee Calculation Formula
- 8. Implementation Plan**
 - 8.1 Funding Model for NICTA
 - 8.2 Annual Base Charge and Fee Structure
 - 8.3 Premium Numbers and Industry-Specific Fees

9. Proposed Annual Fee Formula

9.1 Calculation Example for Cellular and Geographic Numbers

9.2 Example for Short Code Numbers

10. Invitation to Comment

10.1 Call for Public Feedback

10.2 Consultation Submission Guidelines

11. Method of Submission

11.1 Submission Deadline and Details

Abbreviations

- **NICTA:** National Information and Communications Technology Authority
 - **NCD:** National Capital District
 - **ICT:** Information and Communications Technology
 - **ITU:** International Telecommunication Union
 - **APT:** Asia-Pacific Telecommunity
 - **APEC:** Asia-Pacific Economic Cooperation
 - **PLMN:** Public Land Mobile Network
 - **PSTN:** Public Switched Telephone Network
 - **NTR:** Non-Tax Revenue
 - **SPC:** Signaling Point Code
 - **ISPC:** International Signaling Point Code
 - **MNIC:** Mobile Network Identification Code
 - **USSD:** Unstructured Supplementary Service Data
 - **SMS:** Short Message Service
-

Definitions

- **Numbering Resource:** Numbers, codes, names, and addresses used in telecommunications, including subscriber numbers, service numbers, short codes, signaling point codes, and others assigned by NICTA.
- **Numbering Plan:** A structured allocation of telephone numbers for telecommunications services, as developed by NICTA under the NICT Act 2009.
- **Annual Numbering Fee:** A recurring administrative fee charged annually by NICTA for the use of numbering resources.
- **Application Processing Fee:** A one-time fee charged by NICTA to process the application for a numbering resource.
- **Short Code:** A special telephone number, usually 3-7 digits long, used for specific services like emergency services or customer assistance.
- **Premium Number:** A numbering resource assigned for services with special pricing, often involving higher costs for consumers, such as toll services or interactive services.

1. Guidelines on Responding to this Consultation

- 1.1 All comments are welcomed. Your feedback is specially required in section(b). You are required to provide your views on the proposed approach by NICTA and the implementation of Annual Numbering Administration fee.
- 1.2 You are invited to send your written views and comments to the Manager Resource Planning, NICTA, Punaha ICT Haus, Hohola, Port Moresby, NCD or by email to numbering@nicta.gov.pg , at latest by Monday 4th November 2024.
- 1.3 Should you be including confidential information as part of your responses, you are requested to clearly identify the said confidential materials and to place same in a separate annex to your response.

2. Background

- 2.1 The National Information and Communications Technology Authority (NICTA) was established under the National Information and Technology Act of 2009 (NICT Act, 2009).
- 2.2 As an Independent Regulator and to safeguard its mandate, NICTA is self-funded through licensing fees. NICTA's technical regulatory oversight include Licensing and Resource Management (Radiofrequency Spectrum and Numbering).
- 2.3 Consistent with section 35 of the NICT Act, 2009, the Head of State, acting on advice, may make regulations prescribing the fees payable by ICT licensees for ICT Licenses. The fees prescribed shall have regard to the following general principles without limitation;
- 2.4 NICTA is mandated under section 184 of the NICT Act, 2009 to develop and administer the National Numbering Plan (NNP) and all related numbering matters.
- 2.5 Fees imposed for Numbering Resources will have regard to Section 35(3)(b);
- 2.5.1 The manner of calculation of an annual charge to be levied on operator licensees as a numbering fee; and
- 2.5.2 The manner of calculation of a standardized "per number" charge for identified types of numbers that may involve different fees for different types of numbers based on their relative scarcity, such that, for example, numbers with smaller numbers of digits are subject to higher "per number" charges
- 2.6 The Application and Processing fees currently charged by NICTA were set since NICTA's Establishment in 2009
- 2.7 NICTA has never charged fees for Numbering Resources due to the cost recovery principle for NICTA funding consistent with section 32 of the NICT Act, 2009.
- 2.8 NICTA has now seen an increase in its operating costs and the need to build capacity due to a significant growth in the industry.
- 2.9 The objectives of this consultation are to;
- 2.9.1 Inform the stakeholders on Numbering as a critical Telecommunication Resource
- 2.9.2 Inform the stakeholders on NICTA's Numbering Management function
- 2.9.3 Inform the Public on NICTA's intention to introduce Numbering fees on selected Numbering resource
- 2.9.4 Seek public comments and feedback on NICTA's intention

3. Numbering Resource

- 3.1 Telephone numbers are a public resource and are used by the telecommunications industry to enable communications to be carried across telecommunications networks.
- 3.2 To enable international communications, the use of numbers is harmonised by a standard made by the International Telecommunications Union (ITU) which says telephone numbers can be up to 15 digits in length including the country code. The ITU otherwise plays a small role in the day-to-day administration of numbers which, in Papua New Guinea (PNG), is the ultimate responsibility of the PNG Government.
- 3.3 Under the National Information and Communications Technology Act 2009 (NICT Act, 2009) the government has assigned responsibility for managing the supply of telephone numbers, which includes specifying the numbers for use in PNG in connection with carriage services, to the National Information and Communications Technology Authority (NICTA).
- 3.4 As well as industry and consumer use, numbering plays an important role in supporting and facilitating various ICT policy objectives. These include policy objectives related to consumer protection, competition, security and safety, and revenue collection.

4. Numbering Assignments

- 4.1 Numbering Resource means numbers, codes, names and addresses including ENUM numbers, which are mapping of mnemonic internet addresses (domain) allocated by NICTA to service providers for use in communications as determined by the national numbering plan.
- 4.2 NICTA grants the right to use numbering resources in accordance with the NICT Act 2009, the Operator Licensing Regulation, 2010, and the National Numbering Plan.
- 4.3 NICTA is required to notify ITU on any revisions to the national numbering plan changes, or to give an explanation of national numbering plan as well as their contact points, so that the information, which will be available freely to all Administrations/ROAs and service providers, can be posted on ITU-T website.
- 4.4 Numbering resources are divided in various categories including the following among others:
- 4.4.1 Subscriber Numbers (PSTN and PLMN)
 - 4.4.2 Carrier Selection Code (CSC)
 - 4.4.3 Service numbers (like free phone numbers, premium rate numbers, etc.).
 - 4.4.4 VAS short Codes (USSD and SMS)
 - 4.4.5 National Signaling Point Codes (SPCs)

- 4.4.6 International Signaling Point Codes (ISPCs)
 - 4.4.7 Mobile Network Identification Codes (MNIC)
 - 4.4.8 Corporate Services Numbers, e.g. VoIP Number ranges
- 4.5 The following table summarizes some current assignments

Category	Assigned Numbers	Length
PSTN (subscriber)	120,000	7 digit
PLMN (subscriber)	14,000,000	8 digit
Short Codes	196	Syntax 15xx and 16xx
Toll free	191	Syntax 180xxxx
Premium Rate Service	Nil	Syntax 190xxxx
Private PLMNID	1	3 digit

5. Current Fees and Considerations

- 5.1 Although Numbering is a national resource administered by NICTA, Annual administration fees were never charged across all assignments since NICTA's establishment in 2009.
- 5.2 Consistent with section 32 of the NICT Act 2009 and the Cost recovery principle, NICTA was able to sustain its operations entirely from Radio spectrum fees. This includes the cost for maintaining the current numbering administration function. Spectrum fees alone is now not sufficient to cover all costs related to NICTA's regulatory function
- 5.3 Despite operating independently and entirely on licensing fees, NICTA is now subjected to the Non-Tax Revenue (NTR) Act 2021, where significant percentage of the revenue is remitted directly to the government.
- 5.4 Part VII of the National Information and Communication Technology (Operator Licensing) Regulation of 2010 provides for "imposition of charge" and "amount of charge" for the numbering fees. This also spells out exemption from charge for emergency and community service numbers.
- 5.5 Since NICTA's establishment in 2009, PNG has seen significant growth in the industry, particularly the number of licensees, services provided by these licensees, and the demands by their customers. Based on NICTA's report of 2019, the number of Licensees grew on average by 18% per year. Current figures indicate over 50 individual network Licenses issued and over 100 individual gateway licenses.
- 5.6 Consumers expect greater connectivity and more sophisticated devices. New services such as messaging for direct-to-mobiles are increasingly available and in demand. Enterprise and government customers are seeking communication services for greater operational efficiency and to provide and support their services.
- 5.7 These changes put pressure on the regulatory arrangements defining the type, specification for use, and allocation of telephone numbers. We have seen a decline in the demand for some services, for example, for premium rate, paging and calling card services which has seen a corresponding fall in the allocation and use of those number

types by industry. Meanwhile the growth of other technologies has enabled a range of new services and ways to connect over communications networks, including using non-numeric identifiers such as alpha tags that are not included in current numbering arrangements. The ongoing high volume of scam calls and short messages (SMS) delivered over telecommunications networks continues to be a problem, with scammers also leveraging off new technologies, and exploiting and misusing numbers causing harm to consumers.

5.8 NICTA's capacity building to address regulatory efficiency is critical to the industry needs.

6. The Annual Numbering fee

6.1 Section 19 (b) of the NICT (Operator Licensing) Regulation of 2010 requires NICTA to make a written determination setting out how the amount of charge for the numbering fee is imposed on users.

6.2 The annual numbering fee charges that are imposed on licensees are payable every year. The fees apply to certain numbers and it apply irrespective of whether the numbers have been given to the customers or not.

6.3 The fee does not apply to:

- 6.3.1 Emergency short Codes
- 6.3.2 Community service numbers
- 6.3.3 Telex numbers
- 6.3.4 International signaling point codes
- 6.3.5 Mobile network codes
- 6.3.6 Carriage service provider identification codes (14XY codes)
- 6.3.7 International access codes (4 and 5 digits in length only)
- 6.3.8 Virtual private network access codes
- 5.3.9 International access codes that come into the country (4 and 5 digits in length only)

6.4 We will charge these numbers at a reduced rate:

- 6.4.1 Testing service numbers
- 6.4.2 Internal network service numbers
- 6.4.3 International access codes that come into the country (more than 5 digits in length)

7. Fee Determination and Proposal

7.1 Introduction of the Annual Numbering fee is now necessary due to the growth of the industry and the new NICTA corporate structure to improve capacity and effectively deliver on responsibilities under the Act

7.2 The amount of fees charged for granting individual rights of use are determined having regard to the administrative costs incurred in the management, control and enforcement of rights of use and of specific NICTA obligations, which include costs for international cooperation (ITU, APT, APEC etc.). Treatment of specific numbering resource under the category of a valuable state resource is also a major consideration in the proposed fee formula. Key considerations for this proposal include;

- 7.2.1 Growth of Industry particularly in the Mobile Telecommunications Sector
- 7.2.2 Increasing cost related to NICTA enforcement and Compliance responsibilities
- 7.2.3 Cost related to staffing needs consistent with the new NICTA Corporate structure (Corporate Plan 2021-2025) to effectively respond to industry growth and development
- 7.2.4 Cost relating to NICTA's contribution to ITU on behalf of the state has risen from a quarter to half a unit since ITU Plenipotentiary Conference 2022
- 7.2.5 The requirement to support Government Budget as required under the Non-Tax Revenue Act, 2022
- 7.2.6 Prefix 7 of Cellular Mobile Number exhausted and increasing demand for new assignment in the prefix 8. (Note: Only two range currently in the Numbering Plan)
- 7.3 Part VII of the Operator Licensing Regulation, 2010 outlines the basis for numbering fees. In particular, section 18 and 19 spells out imposition of charge and amount of charge respectively.

7.4 Section 18, Imposition of Charge;

- 7.4.1 NICTA Shall impose a charge calculated in accordance with section 19 for the allocation of numbers
- 7.4.2 A charge imposed on allocation of a number to an operator licensee is payable to NICTA by the licensee

7.5 Section 19, Amount of Charge;

- 7.5.1 The charge imposed on the allocation of any number shall be –
 - 7.5.1.1 Where the number is part of a group or type of numbers that is a valuable state resource within the meaning of section 36 of the Act, calculated in accordance with Section 36 of the Act; or
 - 7.5.1.2 In any other case, calculated in accordance with a written determination made by NICTA

7.6 There are two categories of Numbering Fees, namely: Application Processing Fee and Annual fee

7.6.1 Application Processing fee

- 7.6.1.1 This is the generic application fee prescribed in the Operator Licensing Regulation of 2010

7.6.2 Proposed Annual fee

- 7.6.2.1 This is the annual administrative fee for utilised subscriber numbers of Fixed, Cellular Network Operators and any other Assignees computed according to a fee formula and shall be paid on or before the anniversary of assignment of the number.

8. NICTA intends to implement the following;

8.1 Cover up to 25% of its total cost from Numbering Resources fees

- 8.1.1 implement annual Base Number Charge for each of the numbering categories for PLMN, PSTN and Short Codes;

8.1.2 Maintain the current one-time application processing fee

8.1.3 Implement market or industry specific fee for premium numbers with specific terms and conditions of use

9. Charge an Annual Reservation fee (up to 25%) of Annual fee on Numbers reserved for PLMN, PSTN or any other service as may be allowed.

9.1 Table.

Type of Numbering Resource	Description	Application Fee	Annual base charge per subscriber number	basic block size
PLMN (Subscriber)	8-digit numbers for cellular mobile service	K500 +GST	K1.00	10,000
PSTN (Geographic)/(Subscriber)	7-digit regular phone numbers with geographic significance. The area code part determines the location (province etc.)	K500 +GST	K0.50	10,000
Short Codes	Numbers with leading digit 1 allocated for special services including operator assistance, service enquiry, voice information, emergency services and IN services. Typically 3 to 7 digits long	K500 +GST	K1.00	10
Premium Numbers		K500 + GST	Industry Specific fee	N/a

9.2 Possible Annual Fee Formula

For Cellular and Geographic numbers

$$F = N \times B \times C \times 10^{(8-x)};$$

For Short Code

$$F = N/10 \times B \times C \times 10^{(8-x)}$$

Where:

B: Block Quantity

C: Basic Charge

N: Number of blocks

X: Number length

8: Current Maximum Number Length

Example 1: Assignment of a single block of 10,000 Cellular Mobile Numbers

$$F = 1 \times 10,000 \times K1 \times 10^{(8-8)}$$

$$F = 1 \times 10,000 \times K1 \times 10^{(0)}$$

$$F = 1 \times 10,000 \times K1 \times 1$$

Amount Payable annually = K10,000

Example 2: Assignment of a single block of 10,000 Geographic Numbers

$$F = 1 \times 10,000 \times K0.50 \times 10^{(8-7)}$$

$$F = 1 \times 10,000 \times K0.50 \times 10^{(1)}$$

$$F = 1 \times 10,000 \times K0.50 \times 10$$

Amount Payable = K50,000

Example 3: Assignment of a single short Code with 3 digits

$$F = N/100 \times K1.00 \times 10^{(8-x)}; \text{ where basic block size of 100 is applied}$$

$$F = 1/100 \times K1.00 \times 10^{(8-3)}$$

$$F = 1/100 \times K1.00 \times 10^{(5)}$$

Amount payable = K1,000

10. Invitation to Comment

10.1 NICTA invites all industry stakeholder and the public to comment. The consultation document will be made available through the NICTA website also emailed directly upon request.

10.2 Review section one of this document for guidelines on how to submit your response to this consultation.

11. Method of submission

11.1 Submission can be made electronically via email or hard submission by 25th October 2024.