



11 MAY 2022

**Vodacom's Submission on ICASA Draft Amendments to Numbering Plan Regulations of 2016,
Gazette 46080 of 23 March 2022.**



1. INTRODUCTION & GENERAL COMMENTS

Vodacom Pty Ltd (“Vodacom”) wishes to thank the Authority for the opportunity to make submissions in regard to its Draft Amendments to the Numbering Plan Regulations of 2016 (the “Draft Regulations”).

Amendments to the Numbering Plan Regulations provide an opportunity to update these regulations in response to the changing needs of customers and operators.

The spirit of Vodacom’s comments and recommendations attempt to provide useful feedback to the Authority in regard to making the Numbering regime in South Africa more effective and efficient, whilst also allowing greater innovation.

For ease of reading, we have included extracts of the Authority’s draft regulations in *red italic* font ahead of Vodacom’s comments on those amendments

2. VODACOM RESPONSES AND RECOMMENDATIONS

2.1. Amendment of regulation 1 of the Regulations - Update to Definitions

2.8. by the insertion, after the definition “Mobile Network Code”, for the following definitions:

“valid number” is a number that complies with sub-regulation (14)(3) and has been designated for the service in question in terms of regulation 15 or 16. In the instance of international calls, a valid number is one that that is presented in the correct international format as set out sub-regulation (14)(3).”

Vodacom welcomes the inclusion of this definition as it re-affirms acceptable screening rules for both incoming and outgoing calls. That said, it is not clear whether the “valid number” definition references the called number, be it international or national. Vodacom proposes that this definition be expanded to indicate “valid called number” instead of “valid number” only.

2.10. by the substitution of the definition “short code” for the following definition: “short code” means any number between 3 and 6 digits in length.”

The amendments of regulation 1 encapsulates refining existing definitions, that require further clarification and certainty for implementation and compliance with the Regulations, as well as to remove ambiguity and to align the terms with current practices. For example, the proposed definition does not cater for short codes that may not be within the 3–6 digit range such as 082 19XX amounting to 7 digits, which would fall outside any other number range definition. In essence, the proposed draft regulation creates a regulatory lacuna for numbers that are between 7 and 9 digits in length. The 2016 Numbering Plan Regulations definition as indicated below had accounted for such short codes, in terms of number length and the type of number as follows:

““short code” means any non-geographic number less than 10 digits in length.”

Therefore, Vodacom recommends the Authority revise the length of short codes proposed to accommodate short codes of any length less than 10 digits.

2.2. Amendment to section 2 of schedule 1 of the Regulations - Harmonised and Mandated Numbers.

2022: Section 4:

(a) When harmonising numbers, the Authority must: (i) not less than thirty (30) days before any number is harmonised, consult affected licensee regarding the proposed changes; and (ii)



publish a notice in the Gazette stating the numbers that are harmonised and describing the services for which the numbers must be used to receive communication.

Vodacom welcomes the process of consultation prior to harmonising number. In addition to the notice for consultation, Vodacom request the Authority allows sufficient time for implementation, such as not to disrupt current operations.

(b) Licensees must ensure communications to a mandated number is routed irrespective of the electronic communication network used in originating the communication.

(c) Licensees must ensure that callers incur no charges for communications to a mandated number irrespective of the electronic communication network used in originating the communication

Vodacom is concerned that the Authority's draft regulation is open-ended, and does not set appropriate boundaries for mandating charge-free calls. As currently drafted, the regulation creates the potential for abuse and significant revenue loss. We recommend that the Authority set out the specific circumstances and conditions under which it will mandate a particular number as charge-free, and consult licensees in terms of appropriate and effective abuse control measures prior to implementation.

19.1. Section 2 of Schedule 1 of the Regulations is hereby amended by the substitution for subparagraph (iii) with the following:

“(iii) Service designated for harmonized services

Harmonized Codes

Service	Code
Voicemail deposit & retrieval	134
Customer care\service	135
Prepaid recharge and balance enquiry	136
Account Enquiries	137

The amendment proposes a merged voicemail retrieval and deposit into a single service, ostensibly intended to promote efficiency by reducing of the number of harmonized codes. However, merger of the voicemail retrieval and deposit services were heavily debated during the drafting of the 2016 Numbering Plan Regulations, more specifically the draft Harmonization regulations. The result of that consultation process is depicted below, and Vodacom recommends it should be retained as per the 2016 regulations:

Service	Code
Voicemail retrieval	132
Voicemail deposit	134
Customer care\service	135
Prepaid recharge and balance enquiry	136
Account Enquiries	137

The voicemail retrieval and deposit services cater for separate user needs , warranting uniquely assigned short codes for each service. Merging the services into a single short code is likely to frustrate users, as they would be required to navigate an additional menu layer before gaining access to their messages in the case



of retrieval attempts. In addition, the Authority should pay careful consideration to the fact that voicemail deposit messages are a fraction of the total volume of voicemail retrieval attempts. Vodacom expects that all operators would receive a fraction of the number of voicemail deposits, when compared to voicemail retrieval attempts. As such, forcing customers that attempt to retrieve messages through an additional layer of the voicemail menu system will result in inefficient use of resources, as the average call holding time will increase for the majority of voicemail interactions when not require for those retrieval attempts, wasting valuable network resources. Vodacom asserts its recommendations to keep both these services separate and having to be accessed seamlessly.

Vodacom wishes to also advise the Authority that the harmonized voicemail deposit service should not be confused with Call Forwarding voicemail deposit. As such, Vodacom recommends that the harmonised service be labelled “Voicemail Direct Deposit”.

2.3. Substitution of regulation 23 of the Regulations - Payment for Numbers

2022: The following regulation is hereby substituted for regulation 23 of the Regulations:

(1) Fees payable by licensees for the allocation of numbers to recover the administration costs are:

(a) contained in Annexure A of these Regulations;

(b) non-refundable; and

(c) subject to an annual increase in the number fee structure calculated by the weighted average of Consumer Price Index of the previous calendar year.”

Vodacom was unfortunately unable to locate the “Annexure A” as referred to by the Authority. We nonetheless, request that the Authority provide reasonable notice to licensees when engaging on a fee framework, as well when implementing a new fee framework.

2.4. Amendment of regulation 5 of the Regulations - Tightening of application rules and processes

2022: Section 5.4.8:

Regulation 5 of the Regulations is hereby amended by the addition of the following sub regulations:

“(8) An application for mobile numbers must include:

(a) A copy of the radio frequency spectrum licence issued in line with chapter 5 of the Act and of which the licence condition permits the roll out of mobile service; or

A practical operational issue arising from the draft regulation, is that the authority is not sufficiently clear on the category of mobile spectrum license which would be applicable in order to be allocated mobile numbers. Vodacom recommends that the Authority specify IMT spectrum licenses as being required when applying for mobile numbers.

(b) National mobile roaming agreement with a Licensee that has been issued a spectrum licence in line with chapter 5 of the Act and of which the licence condition permits the roll out of mobile service.

The provision of this amendment creates a lacuna that would allow entities without any assigned spectrum to operate as though they have been assigned spectrum, by virtue of having a roaming agreement in place with a spectrum licensee/MNO. In circumstances where such entities are speculative, allowing allocation of mobile numbers to non-spectrum licensees will have the impact of placing significant strained on an already constrained mobile number resource pool.



2.5. Amendment of regulation 5 of the Regulations - Number Recycling

2022: Section 5.1.2:

The application set out in sub-regulation (1) must be furnished in the format as set out in Schedule 3 of these Regulations with the following information:

(a) Proof of payment for the prescribed fee (Schedule 5).

(b) A copy of the Individual Electronic Communications Service licence (I-ECS) licence issued by the Authority where applicable

(c) A copy of a valid competency certificate issued by the relevant institution and certified by SANSA for certain classes of vessel, both commercial and pleasure, that are required under the Merchant Shipping Act, 1951 to be provided with an Emergency Position Indicating Radio Beacon (EPIRB), programmed with a unique 9-digit number as specified by the ITU called a MMSI." where applicable.

The fee structure is currently unknown – it may be impractical for payment to be made in advance of the Authority making its decision on the extent of its approval against an application, for a variety of reasons. We recommend that the Authority reconsider its proposed fee payment process once the fee structure has been settled.

2.6. Insertion of regulation 6A to the Regulations - Biometric Data Collection and Verification

2022: Section 6A:

The following regulation is hereby inserted in the Regulations, after regulation 6:

(1) Churn rate must be calculated by taking the quantity of numbers that are no longer in service/discontinued accessing or receiving a service and divide by the quantity of numbers activated at the beginning of a given timeframe.

Vodacom is aligned with the proposed calculation definition of the churn rate by the Authority and recommends the Authority ensures that this is common practice for operators.

(2) Churned numbers must be quarantined for a period of 90 days before being recycled into the pool of available numbers.

Extending the respective operator's quarantine period to 90 days, would mean we only have access to recycle dormant MSISDNs in 210 days, which is broken down into 120 Date of Last Activity (DOLA) days and an additional 90 days of quarantine.

At the rate at which operators recycle numbers currently, that implies that potentially several million numbers would be dormant or quarantined at any given point in time, significantly reducing the available number pool. Initial current estimates are that Vodacom may not have such an additional quantum of MSISDN's in reserve that could be assigned to new customers.

Thus, the risk of numbers running out in any given month becomes higher. Whilst Vodacom appreciates the release of 05 number range into the mobile category, this may not provide sufficient relief in terms of the constraints on numbering resources. Vodacom recommends that the Authority reduce the DOLA to 90 days of inactivity by the customer, and include 31 days of quarantine thereafter to allow for final correspondence between the customer and operator.

(3) Prior to activating a quarantined for a period of 90 days of withdrawing numbers from assigned subscribers, a licensee must notify the subscriber of the intended withdrawal. The subscriber must be afforded a grace period of 31 days to object to the withdrawal notice.



The proposed amendments for this section need to be considered in the context of Vodacom's comments to subsection 2, as follows: Vodacom recommends that the Authority reduce the DOLA to 90 days of inactivity by the customer, and include 31 days of quarantine thereafter to allow for final correspondence between the customer and operator. Vodacom's understanding is that post the 31 days of quarantine and correspondence with the customer, should the customer have not already responded with a clear request to retain their number (within the 31-day quarantine period), that number is immediately re-assigned to another user. In the event that the customer opts to retain their number, Vodacom proposes the following rules to be applied in order to prevent abuse and minimize resource wastage:

1. The customer to be allowed only one instance of number retention within a 12-month period.
2. Should the customer not allow for the number to be recycled and opts to re-activate it, then the number will be made available to the customer within 72 hours.
3. The customer must show activity, as per the activity rules of each respective operator, within a 7 (seven) calendar-day reactivation grace period from the date of opting to retain their number. Should they not show activity on their number within the 7-day reactivation grace period, the number will immediately be recycled at the end of the 7-day reactivation grace period, and be made available to another customer.

Operators should be allowed to campaign the customer as many times as required, through whichever channel or means, during the quarantine period, before recycling the number.

In cases of fraudulent activities (such as sim swaps, identity theft and app take-over) being reported or identified on a number, Vodacom recommends that subscriber notification is excluded, such as not to perpetuate the activity.

(4) Should a subscriber object to the withdrawal as per sub regulation (3), the licensee must abandon the withdrawal and subsequent deactivation of the number\.

Vodacom believes in giving the best possible user experience to each of our customers. However, it is necessary to protect both customers and networks against the effects of abuse. Vodacom has proposed a set of reactivation rules in its response to subsection 3 as follows:

1. The customer to be allowed only one instance of number retention within a 12-month period.
2. Should the customer not allow for the number to be recycled and opts to re-activate it, then the number will be made available to the customer within 72 hours.
3. The customer must show activity, as per the activity rules of each respective operator, within a 7 (seven) calendar-day reactivation grace period from the date of opting to retain their number. Should they not show activity on their number within the 7-day reactivation grace period, the number will immediately be recycled at the end of the 7-day reactivation grace period, and be made available to another customer.

Should there be extreme circumstances that warrant special attention and leniency by the licensee, any leniency on the rules recommended above need to be motivated by the customer, and may be granted at the sole discretion of the licensee concerned.

2022: Section 6A:

(5) On activation of a mobile number on its network, a licensee must ensure that it collects and link the biometric data of the subscriber to the number.

Vodacom is encouraged by the Authority's attempt to enhance customer security. The practice of biometric authentication for a mass-market base is complex and costly to implement. Through its various partners, subsidiaries and affiliates, Vodacom has obtained significant experience in terms of practical biometric solutions for the respective markets and segments that we operate in. In order to ensure consistency across operators and improve efficiency of implementation, Vodacom recommends that the Authority engage with licensees in an iterative consultation process (including joint workshops) to identify practical solutions that will be efficient and effective for the South African market, prior to finalising this



regulation. Such a consultation process could include inter alia ownership and management of databases, data validation, Enrolment and Authentication tools, Privacy and Security, Operational Resiliency, etc.

Scope of Biometric Data Collection:

Licensees RICA and activate hundreds of thousands of sims a day on average. Nonetheless, for a variety of reasons, for example lack of touchpoints with a large number of existing customers, it will be impractical to validate all customers *currently* on the Vodacom network. As such, it may only be feasible to collect biometric information when a customer attempts to upgrade or activate a new SIM.

(6) A licensee must ensure that, at all times, it has the current biometric data of an assigned mobile number.

Kindly refer additionally to Vodacom's response to subsection 5, which states:

Licensees RICA and activate hundreds of thousands of sims a day on average. Nonetheless, for a variety of reasons, for example lack of touchpoints with a large number of existing customers, it will be impractical to validate all customers *currently* on the Vodacom network. As such, it may only be feasible to collect biometric information when a customer attempts to upgrade or activate a new SIM.

There are currently tens of Millions existing customers that are already active on the respective networks, who do not have their biometric data captured and stored. The administrative burden to run an extraordinary campaign for collection of existing customer biometric data is onerous both on customers and network operators. Vodacom recommends instead that operators collect biometric data during administrative touchpoints with new and existing customers. While still burdensome for both customers and operators, such an approach may be far more efficient and effective.

2022: Section 6A:

The following regulation is hereby inserted in the Regulations, after regulation 6:

(7) Mobile number's assigned to a juristic person are exempted from the provisions of sub regulation (5).

Vodacom wishes to alert the Authority to a potential risk in the proposed regulations, as it allows MSISDN's to be allocated under juristic entities which belong to individuals who may not want their personal biometric information captured. Therefore, Vodacom recommends that the Authority maintain that mobile numbers assigned to a juristic entity are still required to be registered prior to being activated. The difference in the process for a juristic entity (versus a unique MSISDN linked with a natural person) is that juristic entities would be required to nominate authorized person/s as the official representative/s, where applicable mobile numbers can be registered under their name. This creates an accountability measure and touchpoint in case of any matters arising with any of the number in their care on behalf of the juristic entity.

(8) The biometric data collected in terms of sub regulation (5) must be used for the sole purpose of authentication of a user assigned a mobile number.

Vodacom requests the Authority to provide further clarity in terms of the scope of authentication for which it expects that licensees to use biometric data.

(9) If a subscriber requests a SIM swap, the Licensee must ensure that the biometric data of the user requesting the SIM swap corresponds with the biometric data associated with the mobile number.

Vodacom recommends that the Authority includes the SIM-swap authentication process as part of its consultation with licensees on the broader biometric data collection and management framework.

(10) If the biometric data does not correspond with the biometric data associated with the mobile number, the SIM swap must be declined."



Vodacom recommends that the Authority include the SIM-swap biometric data mismatch process as part of its consultation with licensees on the broader biometric data collection and management framework.

2.7. Amendment to regulation 9 of the Regulations - Number Barring

2022: Section 9.2:

Regulation 9 of the Regulations is hereby amended by the addition of the following sub regulations:

“(5) A Licensee must provide a facility that enables subscribers to opt to bar calls from specified numbers on their respective devices.”

Subscriber-specific Call Barring features are complex and costly to implement for mass-market services, requiring changes to a large number of systems and processes. Additionally, the administrative burden to operators when dealing with customers that have erroneously administered call barring for one or more numbers, detracts resources from the core service delivery function. Vodacom recommends that the Authority further engage with the respective licensees to better understand the challenges in implementing the various types of network-based subscriber-specific call barring solutions, prior to finalising this regulation. Should a customer find genuine cause to believe that a particular number is being used for illicit purposes, such as spam or harassment, then we understand that the Authority has a process currently in place to investigate such matters, and then if require instruct all networks to block the offending call originator. In the case of nuisance calls, customers are in many cases able to directly block such calls through native capability on their device, or alternatively acquire a device that has such capability.

2.8. Amendment of regulation 1 of the Regulations - CLIP Rules

2022: “calling line identification presentation (CLIP)” means a supplementary service offered to the called party which provides the calling party's number, with additional address information if any, to the called party.

2022: “calling line identification restriction” means a supplementary service offered to the calling party to restrict presentation of the calling party's number, with additional address information if any, to the called party.”

Regulation 12 of the Regulations is hereby amended

- 10.1. by the substitution for paragraph (d) of sub regulation (1) of the following paragraph: “(d) ensure that Caller Line Identification (CLI), wherein the caller has opted not to restrict their CLI, includes a valid, dialable number which uniquely identifies the caller;”

Vodacom deems this amendment as providing much needed clarity on CLI presentation.

10.2. by the addition to sub regulation (1) of the following paragraphs:

(f) ensure that in the event a caller has opted to use another number for their CLIP, that the number in question must have been either allocated or ported to the originating Licensee, must be a valid, dialable number which uniquely identifies the caller and must not be a number that connects to a Premium Rate Service;

We welcome the inclusion of this regulation. The Authority can, however, enhance the regulation by stipulating that all signalling information (call headers) for calls where CLIP has been enabled, bear all the numbers involved for the call.



(g) ensure that, as the originating Licensee, the correct CLI is generated at call origination and that the correct CLI data is exchanged, where applicable, over points of interconnection;

Vodacom's current view is that it's the responsibility of the call originator to ensure that calls leaving its network present the correct CLI information at the point of interconnection, even if CLIR is enabled.

(h) ensure that, as a transit and/or terminating Licensee and where it is technically capable, stop calls with an invalid and/or non-dialable CLI." 10.3. by the deletion of sub regulation (2)

We welcome this regulation as it allows for expedient blocking of calls that do not conform to the Authority's Regulations.

2.9. Amendment to regulation 16 of the Regulations - Update of Geographic and Non-geographic number ranges

2022: Regulation 16 of the Regulations is hereby amended:

13.1. by the substitution for sub regulation (3) of the following sub regulation:

"(3) A machine related number must have a maximum length of twelve (12) digits."

13.2. by the insertion, after sub-regulation (3) of the following:

"(4) Non-geographic ranges are along with their associated services are as listed in Table 4: Non-geographic ranges and services."

2016: "All machine related number changes must be migrated to the new number range within a period not exceeding 12 months from the date of the Regulations coming into force";

2022: The following regulation is hereby substituted for regulation 22 of the Regulations:

"(1) Assignments for bulk SMS/ MMS services, that extend beyond the numbering capacities by licensees as submitted to the Authority before 2016, must be in the designated numbering range for MRS. "

14.1. Regulation 17 of the Regulations is hereby amended by the insertions to sub regulation (4) of the following paragraphs:

*"(k) the service codes 103, 104, 105, 106, 111, 113, 118, **132**¹ and 139 are designated for Special National Emergency Service such as COVID-19 Emergency service number.*

To be noted is that there is no paragraph "j" in the 2016 regulations. We recommend that the Authority correct the Paragraph numbering in the draft amendments.

15.1. Regulation 21 of the Regulations is hereby amended by the substitution for sub regulation (1) of the following sub regulation:

"(1) A number s must be a receiving number for a premium rate service if

- (a) the number is a premium rate number (10 digits) or a machine related number (12 digits);

The introduction of 14-digit numbers for MRS created an administrative business challenge, which is still ongoing. Unfortunately, the Authority is unclear as to the rationale for changing MRS numbers from 14 to 12 digits. In the absence of such clarity, there appears to be no clear benefit in adopting 12 digits for MRS. The following example unpacks this scenario: With a 12-digit length, MRS will still be excluded from NNP,

¹ Please note Harmonized code 132 comments under "Amendment to regulation 21 the Regulations" above.



as the total number length will be 17 digits in the context of port routing (ITU-T Rec. E.164 standard permits maximum 15 digits). The CRDB only supports 10 digits maximum at present.

Additionally, the following example illustrates the impact of the proposed change on the pool of available numbers:

Mobile numbers:

NDC ABC ZZZZ (10 digits) - pool of MSISDNs per NDC (e.g. NDC=082) = 10 million.

MRS:

096 ABC ZZZZZZZZ (14 digits) - pool of MSISDNs = 10 billion.

096 ABC ZZZZZZ (12 digits) - pool of MSISDNs= 1 billion

Vodacom recommends that the Authority allows flexibility with regard to MRS, which will allow operators to offer either the newer 14-digit length for newer implementations, but also 10-digit MRS numbers for cases where there are legacy operational or business challenges. Such an approach would be to the benefit of customers and operators alike, whilst still ensuring reasonable efficiency in number resource management.

3. ADDITIONAL COMMENTS AND RECOMMENDATIONS

In addition to the draft amendments proposed by the Authority, Vodacom would like to draw the attention of the Authority to some areas of the numbering regulations that require further amendment. Below are the most salient points:

3.1. Virtual Platform Application Geographic number linking.

Operators are losing potential new users as a result of cumbersome workarounds involving the assignment of 087 VoIP numbers to host ported-in geographic numbers on applications such as Webex and more. This workaround unfortunately results in inefficient use of allocated numbers. The draft amendment unfortunately does not provide an efficient and effective solution to this current challenge.

3.2. Amendment to regulation 15 and 16 the Regulations

Due to technological advancements, for example Voice over Internet Protocol (VoIP), there has been a change from the traditional manner of providing geographic services i.e., Public Switched Telephone Network (PSTN). This has had the consequence of giving geographic services the potential for “pseudo-mobility” and thus an appearance of convergence of services.

- Vodacom understands that Geographic numbers can be linked to on-device Apps when the final new numbering regulations are published. Vodacom seeks the confirmation from the Authority for such scenarios, as Regulations 15 and 16 (sub regulation) are vague in this regard.
- Considering the Authority’s “mobility...convergence of services” reasons document statement and taking into consideration the proposed Amendments to Regulation 16, the Authority may wish to consider whether geographic significance is still relevant within the context of the rapidly evolving Technology landscape.



3.3. Cloud Platform Number requirements.

The draft regulations are unfortunately silent on the Virtual Number (Cloud Numbering) platform services that are a rapidly expanding trend globally in recent years. Vodacom recommend that the Authority further consider such platforms prior to finalising the amendment Regulations.

3.4. Individual number ranges (080, 0860 and 0861) regulation

Vodacom requests the Authority to also amend the regulation indicated below:

(6) The following number ranges are subject to individual number allocation or reservation: 080; 086 0 and 086 1.

This regulation has caused a lot of dissatisfaction amongst potential new clients and various operators for the following reasons.

- The 20 working days for application/s to be approved does not keep track with the pace of business and customer demands, and as such we request that the time for approval to be provided to operators by the authority to be shortened, and the allocation of numbers in this range needs to be more flexible to allow blocks of numbers instead of individual number allocation (one-on-one basis).
- Vodacom recommends the Authority to consider applications for relatively small 080, 0860 and 0861 pools of individual numbers (10 or even 20 per number block). Having pools of numbers available that can be pre-configured once off internally/externally, will allow for rapid service activation that can potentially be implemented within a week (with notification to the Authority if it so requires), to the benefit of customers and the market. Customer's special number requirements may unfortunately still need to be subjected to the worst-case scenario of individual applications to the Authority taking several weeks for each application to be approved. The amendment of Regulation 5 with the substitution for sub regulation (5) could potentially further complicate the challenge explained above. This regulation in its current form distorts the market, as operators with large pools of 080 and 086 numbers are able to respond much faster to market demand, than operators that do not have such number pools, and consequently need to apply to the Authority when engaging a potential customer.