



ISPA Submission

in response to

ICASA'S DRAFT NUMBERING PLAN REGULATIONS PURSUANT TO SECTION 68(1)(a) OF THE ELECTRONIC COMMUNICATIONS ACT NO. 36 OF 2005

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Introductory remarks

1. ISPA congratulates the Authority on the work which it has done culminating in the publication of the Draft Numbering Regulations (“the Regulations”) on 4 June 2010. ISPA’s general view is that the Regulations are of a high standard and form an excellent basis for advancing the management of numbering resources in South Africa. This view is reflected in the limited scope and nature of the submissions raised below.
2. ISPA has noted in particular and supports the forward-looking and flexible character of the Regulations and the steps proposed to cater for greater competition in the provision of services dependent on the use of numbering resources and the realisation of pro-competitive interventions such as carrier select and carrier pre-select.
3. ISPA confirms its acceptance of the Authority’s invitation to make an oral presentation at the public hearings to be convened regarding the Regulations.

Catering for alternative numbering paradigms

4. ISPA acknowledges the efforts made by the Authority and its consultants in the preparation of the Regulations to evaluate the interest in alternative numbering paradigms pursuant to section 68(7)(e) of the Electronic Communications Act (“the ECA”) which enjoins the Authority to include matters relating to the “implementation of electronic numbering, allowing the inter-operation between telephone numbers and the Internet domain name system”. ISPA also acknowledges that its own response at that time was to the effect that there was little interest in this aspect of the ECA at that time.
5. ISPA has also noted the statement found at the bottom of page 5 of the Explanatory Note accompanying the Regulations (“the Explanatory Note”):

“The EC Act also mentions inter-operation between numbering and the Internet Domain Name System. This can, of course, be devised without regulatory intervention; however,

regulatory intervention might be appropriate to avoid possible anti-competitive effects and ensure confidentiality of user information.

Industry working groups might wish to consider suitable approaches to addressing this issue.”

6. In the period between ISPA’s engagement with Authority’s consultants in 2009 and the publication of the Regulations on 4 June 2010 there has been a growth of interest in the increasing interaction between traditional “PSTN-type” numbering and emerging IP-based forms of numbering.
7. The PSTN-based telephony paradigm is still prevalent and important. This paradigm favours numeric telephony addressing and a limited range of services - largely voice, but also fax and data. In the fixed telephone industry there is virtually no new investment in the old type of fixed PSTN networks (either locally or globally). The regulatory imperative for the older paradigm is necessarily more interventionist and therefore ISPA supports the bulk of the proposed numbering regulations, which operate within this paradigm.
8. However, there is substantial investment and growth in IP-based networks, perhaps most importantly in the much-publicised unveiling of Telkom SA Ltd’s Next-Generation Network or NGN, which is in essence an IP network. This paradigm supports alphanumeric addressing and a range of multimedia and converged services - including Presence. It recognises multiple smaller operators, connected via peering arrangements, rather than a few incumbents using traditional interconnection links
9. ISPA submits that Regulations should explicitly take cognisance of and cater for these developments. ISPA accordingly wishes to make certain proposals to the Authority in this regard.
10. ISPA firstly proposes that ICASA expressly cater for alphanumeric addressing in the Regulations.
 - 10.1. The definition of a 'number' needs to be extended. A caller needs to be able to originate a call one network using an alphanumeric destination address, and reach a terminating party on another network (provided of course that both parties had such

capability). Such call scenarios are currently possible, they already take place and they are already standards-based (viz. Internet and SIP standards).

10.2. ISPA submits that ICASA, at this stage, should merely recognise and ascribe to alphanumeric addressing the same level of legitimacy as numeric (E.164) addressing, which is now in reality merely a subset. Another obvious subset to now include is the URI, or universal resource identifier.

11. Secondly ISPA proposes that ICASA support the development of an addressing database to allow efficient look-up and routing of such calls. The standards required to enable this database (the "Carrier ENUM Registry") already exist and should be supported.

11.1. A Carrier ENUM Registry is the telecommunications equivalent of a top-level Domain Name Server. However, it has important differences because it is in a different industry - in particular around ownership, management and customer privacy. An ENUM Registry should contain at least the name of the operator owning the terminating party address and the routing address. It preferably also contains the capability of the terminating user (for example, high definition voice).

11.2. ISPA submits that the basis for an ENUM Registry exists in the current Centralised Reference Database (CRDB). All that is required is the addition of a few fields to allow for the most important additional information - the destination network IP and other optional information such as IP of ingress points and receiver capability

11.3. Operators should manage their own entries into this Master Registry and it should protect access to individual subscriber information, except for the purposes of call set-up. Its primary role is to provide information to the call-originating operator, for call routing. However, it is also an enabling tool which (even in the current standards version) envisages providing far more services. There must be involvement by all participating electronic communications licensees regarding the possible registry uses and policies related to registry data input, output, usage and costs.

11.4. Carrier ENUM standards are global in scope and registries may be international and may contain global electronic communications operator data. For example, the GSMA

operates a registry containing a number of global GSM operators. XConnect's Registry contains millions of numbers drawn from across five continents. The benefit of global registry services is that they keep track of global number ports for access by local operators when calling internationally (and vice versa).

11.5. ISPA therefore proposes that South African providers should enjoy the freedom to utilise one or more alternate Registries, either locally or internationally.

11.6. With regard to the degree of regulatory intervention required, ISPA submits that the Authority need only concern itself with defining the minimum requirements (eg for integrity, accuracy and subscriber privacy) for a Registry to operate. These would cover, inter alia,

11.6.1. Minimum conditions for integrity, accuracy and subscriber privacy where these are not already covered by other ICASA regulations or applicable legislation;

11.6.2. The ability of registries to import data from the South African Centralised Reference Database ("CRDB") as a subset of their data;

11.6.3. The need for the costs of data access to be low enough not to constitute a barrier to competition;

11.6.4. The ability of registries meeting minimum standards to be able to export data to the CRDB.

11.7. There are other countries, for example Holland and the Nordic Countries, which are actively moving at a national level to a more Registry-based routing management regime.

12. ISPA therefore, while supporting the Regulations and their intention to improve number management, also proposes that ICASA examines the paradigm which is already in place and growing, characterised by alphanumeric addressing as well as the enabling of functional Carrier ENUM Registries. These will place the management of numbers in South Africa in step with global trends and further enable local telecoms operators to deliver better services to their subscribers.

13. ISPA submits that the inter-operation of PSTN- and IP-based numbering systems is achievable through the upgrading of the CRDB to an ENUM Registry and that this should

occur in the short-to-medium term and be catered for in the Regulations. ISPA is of the view that it is imperative to ensure that the lessons derived from the ownership and control of the Number Portability Company (NPC) be taken into account in doing this.

14. With regard to the above-quoted statement in the Explanatory Note ISPA:

14.1. Supports the need for a limited degree of regulatory intervention as outlined above both to facilitate the introduction of IP-based numbering systems in South Africa as also to protect consumers and limit the scope for anti-competitive conduct; and

14.2. To the extent that the Authority appears to be proposing the formation of an industry working group to consider these issues, requests further information as to the proposed composition and operation of this working group. ISPA requests that the Authority play a role in establishing and monitoring such a working group and that a framework, including time periods for the achievement of defined milestones, for the operation of the group be provided.

Tariff bands

15. ISPA has noted the proposals made regarding the introduction of tariff bands and that these are intended to “improve tariff transparency, not to regulate tariffs”. ISPA accepts the need for greater transparency but wishes to raise a note of caution to the effect that the implementation of the proposed tariff bands may equate to some form of tariff regulation if not correctly implemented.

Specific comments on the Regulations

16. End-users and subscribers

16.1. ISPA refers to the definitions of these terms in the ECA:

“**end-user** means a subscriber and persons who use the services of a licensed service referred to in Chapter 3;

“**subscriber**” means a person who lawfully accesses, uses or receives a retail service of a licensee referred to in Chapter 3 for a fee or the retail services of a person providing a service pursuant to a licence exemption;

16.2. ISPA requests that the Authority review the use of these terms in the Regulation insofar as there appears to be some confusion in this regard. The definitions of “active number” and “assigned number” illustrates this:

"active number" means a number that has been used during the preceding three (3) months for the origination or reception of a communication by an end-user that is not acting as a provider or reseller;

"assigned number" means a number that is supplied to an end-user or a reseller under the terms and conditions of a provider or another reseller;

16.3. ISPA submits that the underlined phrase “end-user that is not acting as a provider or reseller” could be replaced by the term “subscriber”.

16.4. ISPA submits that the underlined phrase “end-user or a reseller” is tautologous in that a reseller is already included within the definition of “end-user”

16.5. ISPA submits that the misuse of these terms can have a substantive effect in the Regulation.

17. “Days” under the ECA

17.1. ISPA requests that the Authority recognise that “days” for the purposes of the ECA are to be regarded as working days unless otherwise indicated (there is no such indication in the Regulations). The use of time periods which are multiples of 7 throughout the Regulations indicates that the Authority is calculating in calendar days.

17.2. Given the need to use working days ISPA submits that periods currently reflected as “7 days” should be reflected as “5 days”, “28 days” as “20 days” etc.

18. ISPA notes that paragraph 4(5) of the regulations stipulates that the Authority must either grant or refuse an application within 28 days of receiving it. Certain of ISPA members have raised the concern that applications submitted have taken significantly longer than this, resulting in operational risk and reputational loss for such members. Delays in the processing of applications can lead to existing allocations being exhausted, resulting in service provision to new subscribers being delayed.

18.1. ISPA appreciates the capacity restraints under which the Authority operates and that delays in the processing of applications do not generally stem from the numbering division itself but from the need to secure other approvals and signatures within the Authority.

18.2. Nevertheless there seems to be little point in creating a mandatory obligation on the Authority to process applications within a specific time period when there is no consequence attached to a failure to do so. Some of ISPA's members have therefore proposed the insertion of a deeming provision into paragraph 4 of the Regulations which would ensure that licensees are not compromised by the failure of the Authority to act within the time period required. This will also provide a greater degree of certainty to applicants in their efforts to cater for subscriber growth and new service provision and associated numbering requirements.

19. ISPA's members further believe that the efficiency with which applications will be processed will be further enhanced by the use of the acknowledgement of receipt procedure set out in paragraph 4(4) to not only request further information but also to request the correction of any non-material defects identified by the Authority in an application. ISPA accepts that it is the responsibility of the applicant to ensure the correctness of an application but regards the above proposal as being equitable. The correction of a non-material defect or provision of supplementary information should not have the effect of dislodging the application in the queue, i.e. it will still be processed in line with the date on which it was received relative to other applications in accordance with paragraph 4(8).

20. An ISPA member has highlighted the need for an expedited application process where a licensee wishes to access numbers which have previously been reserved for it and has proposed that such process should take no longer than 14 days (or 10 days using the

working days definition set out in the ECA). ISPA supports this proposal on the basis that that the administrative process applicable to such applications is simplified insofar as the criteria to be considered by the Authority is concerned.

21. Other concerns raised by ISPA members include:

21.1. The need for greater clarity and detail from the Authority as to grounds which may constitute the “overriding public interest” such that the Authority will be justified in withdrawing an allocation of numbers from a provider.

21.2. The need for more than a 90 day period to govern the process of the withdrawal of numbers given the detailed and onerous requirements in this regard.

21.3. That the minimum period of at least one month stipulated in paragraph 7(3) for the notification of other providers and relevant foreign electronic communications administrations about routing communications to numbers is too long and should be reduced.

22. Finally there is a concern that paragraph 9(2) of the Regulation creates confusion with regard to the ability of a provider to sub-allocate numbers to another licensee. Some members have indicated that they have previously been forced to approach other licensees for numbers due to the inefficiencies of ICASA’s approval process. This needs urgent clarification especially in terms of 11(2) which permits assignment of numbers by resellers.

Erratum

23. Paragraph 4(1)(g) appears to contain a typographical error:

4. ALLOCATING AND RESERVING NUMBERS

(1) A provider may apply in writing to the Authority for an allocation or reservation of numbers. When doing so the provider must state-

....

(g) the expected utilisation of the numbers ~~one~~ six (6) months after the application is granted; and

24. Paragraph 5(1)(c) appears to be missing the underlined text indicated below. It being an explicit and consistent requirement that only some of the allocated numbers be assigned within the six month period, ISPA regards this as being an error of a typographical nature.

“5 (1) The Authority may withdraw numbers that are released, allocated or reserved from a provider only if-

.....

(c) some of the numbers have not been assigned six (6) months after being allocated, in the case of an allocation; or”

Conclusion

25. ISPA trusts that the above submissions will be of assistance and will gladly provide any further assistance which may be asked of it.
