

ICASA
Attention: Mr Lordwill Zwane
Pinmill Farm
164 Katherine Street
Sandton

E-mail: lzwane@icasa.org.za, numberportability@icasa.org.za

28 October 2016

Dear Mr Zwane

INQUIRY INTO THE NUMBER PORTABILITY REGULATIONS

Switch Telecom hereby responds to the questionnaire published in GG40232 as follows.

QUESTIONNAIRE: INQUIRY INTO NUMBER PORTABILITY REGULATIONS	
SECTION A - GENERAL	
Licensee Details	
Licensee Name	Switch Telecom (Pty) Ltd
Address	Unit 12, Corner Main Office Park, 6 Payne Road, Bryanston, 2191
Contact Person	Gregory Massel
Designation	Director
Telephone	087 550 0000
Email	greg@switchtel.co.za

Services Offered by Licensee (select all that are applicable):	
Retail	
Geographic	X
Mobile	
Wholesale	
Other (Specify)	X (VoIP line services, inbound numbering services, voice transit)

Any confidential information must be marked as such and a request for confidentiality made in terms of Section 4D of the ICASA Act

Signature			
Designation	Director	Date:	28 October 2016

I, Gregory Massel, in my capacity as Director, hereby confirm that the information provided herein is true and correct.

Notes

MOBILE AND GEOGRAPHIC NUMBERING INDICATORS

SECTION B: MOBILE NUMBER INDICATORS			
Mobile Number Indicators	Indicators	From Inception to Date	Comments
	Total Mobile Numbers Allocated	0	N/A
	Total Mobile Number Subscribers		N/A
	Prepaid	0	N/A
	Postpaid	0	N/A
	Mobile Numbers Ported In	0	N/A
	Mobile Numbers Ported Out	0	N/A

SECTION C: GEOGRAPHIC NUMBER INDICATORS			
Geographic Number Indicators	Indicators	From Inception to Date	Comments
	Total Geographic Numbers Allocated	179,000	
	Total Geographic Number Subscriptions	7,085	36,255 geo. numbers
	Prepaid	1,592	3,109 geo. numbers
	Postpaid	5,493	33,146 geo. numbers
	Geographic Numbers Ported In	7,837	
	Geographic Numbers Ported Out	285	

NUMBERING PORTABILITY REGULATIONS QUESTIONNAIRE

1. DESCRIBE YOUR COMPANY OR PERSONAL INVOLVEMENT IN NUMBER PORTABILITY

Switch Telecom was one of the first licensees to offer GNP. Telkom and Neotel were given preference to launch on 23 April 2016, however, ECN, Switch Telecom and Vox Telecom went live on the CRDB from late May to early June 2010 and it was many months before any other licensees went live.

I was actively involved in Geographic Number Portability from the outset. In earlier days, I was personally responsible for all aspects of Switch Telecom's porting, right from processing of the requests on the CRDB through to technical integration, database and switching system integration, regulatory aspects, etc.

Switch Telecom now has an administrative team dealing with the processing of port requests (approvals and rejections for port-ins and port-outs), however, I am still personally involved in the regulatory aspects and systems integration.

2. DESCRIBE YOUR COMPANY'S POSITION IN THE FIXED LINE AND/OR MOBILE MARKETS

Switch Telecom is a provider of fixed, fixed-mobile and voip lines and hosted switchboard solutions (as well as a variety of other value-added telephony solutions).

Switch Telecom processes among the highest volumes of Geographic Number Portability transactions. Ignoring volumes of numbers and looking at volumes of transactions (which eliminates distortions created by a small number of ports of 10,000 and/or 1,000 number blocks), the CRDB currently reflects that Switch Telecom has processed roughly half as many transactions as Neotel (a company many orders of magnitude greater in size, staff complement and capital backing) and similar levels to Vox Telecom (a company also many orders of magnitude larger). Critically we have processed more Geographic port transactions than most competitors, including MTN Business, Vodacom Business, Multisource, M-Web Connect, WBS and Internet Solutions.

Market share figures for voice termination and subscriber numbers within the geographic market are not readily available, however, in terms of porting activities, it would appear that only ECN and Neotel have a significant lead over Switch Telecom with Vox having a very marginal lead. Other participants appears to have processed significantly fewer Geographic Number Portability transactions.

Switch Telecom has not entered the mobile market as a consequence of ICASA having declined the application for mobile numbering it submitted in December 2013.

3. What would you consider to be the advantages and/or disadvantages with the current number portability framework and administration thereof?

Advantages:

- The system is extremely inclusive and relatively welcoming of participation by new entrants to the market
- Although the technology behind the CRDB is rather old and integration requires working with a number of proprietary systems, the technical specifications are very well documented
- The system provides a fair degree of transparency
- Many licensees have already integrated with the CRDB and are familiar with porting processes
- Costs are conducive to porting and, in many instances, free to subscribers. For example, Switch Telecom is currently running a promotion in terms of which it is free for a subscriber to port in their number.

Disadvantages

- By far the greatest disadvantage with the current framework is its failure to address the overwhelming demand for non-geographic number portability. Subscribers have been crying out for this and licensees have been asking ICASA for it. Non-geographic number portability for the 087 prefix is trivial to implement (technically it's virtually identical to GNP) and it would even be relatively simple to implement non-geographic number portability for the 080 and 086 prefixes.
- Information on ported numbers is the subject of non-disclosure agreements and is not made available to the public. While a web-based tool exists for individuals to do low-volume lookups, it is not possible, for example, to use standards-based protocols such as Enum to look up the licensee servicing a number. The NDA agreements that the NPC holds its participants to also prevent them from making such facilities available. It would be in the public interest and significantly enhance subscribers' abilities to implement LCR of their choosing, obtain accurate billing reconciliations through telephone management systems and experience transparency in their services if look-ups could be done by the public at large using a standardised protocol such as Enum (either through the NPC itself or through their provider of choice assuming the NPC amended its terms to no longer prohibit this).
- There is insufficient monitoring by ICASA of compliance by licensees to the regulations and, in particular, the prescribed turnaround times. The NPC are willing and able to make statistics available, however, ICASA does not actively review these nor does it take enforcement action against serial offenders. This lack of enforcement by ICASA is resulting in deteriorating levels of adherence to the regulated turnaround times by licensees, particularly the larger ones.
- Insufficient thought has been given to the concepts of service providers, resellers and wholesale in general within the geographic market. The formulation of the GNP regulations with Telkom and Neotel to the exclusion of all other licensees led to a situation where, because those licensees sold mainly through their own retail channels, little thought was given to situations that arise within a wholesale model. For example, a donor network operator has to verify a port based on subscriber credentials that the network operator is not privy to and that are within the database of the reseller/service provider.

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- Some of the specifications are too vague or open-ended to enable GNP to scale to the demand being experienced.
 - In particular, that one may specify a subscriber by either name or ID number or registration number in various different fields makes it difficult to automate approvals/rejections. An number (be it ID or Registration) follows a set number of digits and patterns and enables instant computer-based approval, however, names are always problematic, e.g. A human can tell that “Switch Telecom”, “Switch Telecom (Pty) Ltd”, “Switch Telecom (PTY) Ltd t/a SwitchTel” and “SwitchTel” are all comparable for approval purposes, however, a computer would reject these as being different. With the demand having grown, it is questionable whether turnaround times can be adhered to unless ICASA mandates that high-volume participants integrate computer-based approval/rejection and, in order for this to be a success, specifications need to be amended, for example, to require that subscribers are identified by ID number or registration number (which will always result in an exact match) rather than name (which may take various formats).
 - There is no consensus on whether a subscriber is entitled to port some (as opposed to all) numbers associated with a particular service. For example, some donor operators allow porting of parts of a DDI range whereas others do not. This is particularly relevant to business services, e.g. DDI ranges, switchboard lines with hunt groups, etc. It is also often ambiguous, when such requests are received, whether the numbers not being ported are to be cancelled or to remain on the old service. This is aggravated by the fact that the CRDB does not provide options to communicate such information, resulting in a situation where it is difficult for a Donor to approve or decline a port without obtaining further instructions from the subscriber which, in theory, they are precluded from obtaining. This can result in a lot of correspondence between the donor and recipient operators and ports taking longer than the regulated turnaround times.
 - No provision exists for retaining and renumbering service (e.g. DSL) on the donor network.
- The rejection codes provided are grossly inadequate to properly communicate reasons for rejection of ports and it completely undermines the purpose of the CRDB to have to send emails back and forth between various licensees’ porting departments to try and establish or share reasons for rejection. This also frustrates scaling to the growing demand as we land up, in effect, with an increasingly manual (and inconsistent) set of processes to cater for the limitation in the CRDB. The CRDB does need a refreshed list of port rejection codes as well as, ideally, an open field to communicate any non-standard reason for rejection (within the port transaction).
- The prescribed Network Sync Time (NST) time of 5pm to 6pm is not ideal as most geographic licensees are closed during this time and there is an unacceptable high incidence of licensees simply not performing de-activations within NST and leaving them until the next morning (or the Monday following a Friday). In many instances, this results in a problematic porting process for the subscriber. While efforts to enforce compliance may help, it is probably more realistic to either allow for an extended NST period during office hours, or, alternatively, to scrap NST completely and allow for port activation at all times.
- There is no form of notification to WebGUI users of the CRDB that a message is pending response from them. Realistically, there are a large volume of WebGUI users and it is impractical for them to be logged in 24/7 (or even 8/5) and constantly searching for updates.

4. Would you consider the fees structure associated with participating in Number Portability such as cost recovery, subscription to number portability administration and charging of ports to be effective?

Switch Telecom is satisfied with the current fee structure, however, notes that, at present, the effective per-number porting fee (after discount) is a fraction of the tariffed fee. The imposition of a relatively high fee with a relatively high discount does make it difficult to budget and, given the stability of porting volumes, it would be significantly more predictable and manageable if the fee and discount were both reduced to achieve the same effective discounted fee.

5. Would you say that there is a need to review the block sizes for Number porting? Please elaborate.

It is not clear what is meant by this question. If ICASA is referring to allocation sizes, then, provided allocations are of blocks of 1,000 or multiples thereof, the system shall remain manageable.

Switch Telecom strongly discourages ICASA from issuing smaller allocations as licensees are not keeping up-to-date with routing changes and it's particularly impractical to keep testing large volumes of tiny allocations.

Notwithstanding that, we note that there are certain number prefixes where allocations of blocks as small as a single number have been made (particularly 086 and 080). The current number portability systems can cater for a number block as small as a single number and, given that previous allocations of such size have been made, it is sensible to simply treat them the same as larger allocations when implementing non-geographic number portability and load them on the CRDB in the same manner.

However, going forward, ICASA should try and avoid allocating many small blocks as doing so will significantly increase the incidence of routing inconsistencies and database errors. ICASA should also take active efforts to make available to licensees, on a DAILY basis, an up-to-date database of all allocations in a format that licensees can readily import into their systems and that enables licensees to perform consistency checks on their own routing databases. With the utmost of respect, an Excel spreadsheet, in a format designed for human consumption (not computer processing), and only emailed on request will NOT suffice; a proper database which can be synchronised electronically is essential.

The Number Portability Company itself would also benefit immensely from such to ensure that its data is consistent with ICASA's allocations and that, rather than waiting for licensees to disclose their allocations to the NPC, the NPC obtains the information from the most trusted source (i.e. the authority allocating numbers, ICASA).

6. What is the mean porting time frame, in hours, have your subscribers experienced? Do you consider it to be reasonable? If not, please indicate what challenges have you experienced and what measures could be taken to reduce the porting time frame.

We do not have accurate figures of this, however, can confirm that the numbers would be measured in DAYS, not hours and, in the case of porting DDI ranges associated with Telkom ISDN services, even weeks or months. We quote a turnaround time of 3 to 5 working days for porting (which takes into account the need to capture forms and administrative processed prior to lodging on the CRDB) and, in the earlier days, we were generally achieving 1 to 3 days. The bulk of our ports are from Telkom and, unfortunately, Telkom's turnaround times have deteriorated terribly to the extent that virtually every port request results in a timer violation (approval response not received within the time frames prescribed in the regulations). This has resulted in turnarounds of closer to a week. In fairness to Telkom, they are not alone in this regard and, as volumes of GNP have grown significantly, it is time for regulation to provide that participants engaging in higher porting volumes are obliged to fully integrate with the CRDB and ensure computer-based (rather than human-based) approval/rejection within minutes rather than weeks.

7. Do you think the current geographic porting at the local area code exchange promotes effective number portability? If not, please elaborate and propose alternatives if any

The concept of exchange-based GNP is entirely obsolete and out of tilt with the Numbering Plan Regulations. The Number Plan Regulations prescribe geographic significance on the National Dialling Code (NDC) only and it is absurd that GNP should be restricted based on a historical design of the Telkom network many decades ago. Moreover, if Telkom themselves are able to port a number from, for example, Switch Telecom, and route it to any of their exchanges within the NDC, then it is unfair that the reverse should be prohibited.

Subscribers move home and/or offices all the time. If their network operator of choice can deliver service associated with their existing number to their new address (within the same NDC area), then it is absurd to prohibit that based on a historical design limitation associated with the donor network that they've long since ported away from.

8. What other non-geographic numbers do you think should be subjected to number portability besides mobile numbers? Please elaborate

087 numbers, for a start, should be treated identically to geographic numbers and should be portable in terms of the exact same processes. Allocations from this NDC are in blocks and it is both technically and functionally trivial to implement portability for these numbers within a few days of ICASA giving its blessing.

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The key demand, however, is for portability of 086 and 080 numbers, particularly in light of (a) the fact that Telkom still holds an effective monopoly and stranglehold in these markets; and (b) ICASA's efforts to open up competition in the Toll Free market.

Having discussed this with the NPC, Switch Telecom believes that it is technically trivial to implement portability of even individually allocated non-geographic numbers and, from a procedural perspective, these can easily be covered within the GNP regulations.

It also makes sense to include portability of 080, 086 and 087 numbers within the GNP process as these numbers have already been identified to be associated with the fixed market and are very closely associated with geographic numbering (080 and 086 numbers currently being dependent on and redirected to geographic numbers in terms of Telkom's implementation and 087 being associated with voip that has been identified as part of the fixed market).

9. Do you think the port back waiting period of two (2) months in the current number portability regulations promotes effective number portability? If not, please elaborate and propose alternatives if any

Yes. There is a practical issue, particularly in the postpaid market, in terms of which a shorter waiting period would expose licensees to serial payment defaulters. The two month period is sufficient that, in the event of default, a service will be suspended (and therefore ineligible for porting).

Also, some subscribers can have initial teething problems and it is only reasonable that they notify their service provider and given the service provider an opportunity to address the issue. Getting cold feet and porting a second time a few days later is not the answer.

Also keep in mind that there is a port reversal process to deal with botched ports.

A waiting period is essential. It could be slightly shorter; 45 days, for example, would address the concerns above to a similar extent to a 60 day waiting period, however a significantly shorter waiting will not.

10. Which provisions of the Number Portability regulations including the functional specifications do you think should be reviewed to improve the efficiency and effectiveness of porting?

Please refer to my answer to question 3 above. The primary need, however, is for participants porting higher volumes than can be efficiently processed manually, to be compelled to automate porting. For example, if, over a 30-day rolling window, a licensee has processed more than than 100 port transactions (whether port-ins or port-outs), it should be compelled to (a) electronically integrate with the CRDB using SOAP API; and (b) fully automate all all processing (from approval to de-activations) of individual ports and at least partially automate processing of managed ports.

11. Do you think the number of days it takes to port should be increased or decreased? Please elaborate and provide alternatives if any

Please see the answer to question 10 above. In effect, decreasing the port time may make it extremely difficult for smaller licensees to comply and increasing them would be unfair and unreasonable towards consumers and businesses alike.

The current achieved turnaround times (at least in respect of GNP) are unacceptable (particularly insofar as they are usually in breach of the regulations) and larger licensees are acting inconsistently in their approval and rejection process and, whether intentionally or not, frustrating the porting process. The elegant compromise is to place greater obligations to automate on licensees as they increase porting volumes, since automation speeds up the porting process, reduces administrative overhead and ensure absolute consistency in application of rules for approval/rejection.

Switch Telecom understands that such obligations would require a significant amount of investment in systems and development time and that, based on the proposed threshold (100 or more transactions within any rolling 30 day period), it would be expected to be held to the same obligation to automate as, for example, Telkom, however, we believe that such automation would be to the benefit of the industry as a whole and, to the extent that such obligation was placed on Telkom, we would gladly accept a similar obligation on Switch Telecom.

We understand that certain ports are difficult to process automatically; as a reasonable compromise, we'd propose that any individual number ports should be capable of being automated and the "managed" porting process can be used to cater for those ports where, for technical reasons, automation is not possible.

12. Do you think the current recipient led porting process is effective? Please elaborate and provide alternatives if any

Yes. We have considered various alternatives, however, keep coming back to the same conclusion that the fundamental problems being experienced are resulting from a lack of specificity in the fields being submitted with ports and the use of names (that are subject to typos and errors) rather than ID/registration numbers (for which a computer can immediately throw up an alert if, for example, the data capturer misses a digit).

We do believe, however, that an optional pre-authorisation mechanism may be useful, provided it is an optional mechanism and not compulsory. In terms of such a mechanism, the subscriber would contact their current service provider and request a port-out authorisation code that is valid for 7 days. They they provide the code to their new service provider. Where the new service provide uses the pre-authorisation code (which would substitute the need for the subscriber's name/id and account number), the port should be approved automatically and without delay or verification on the grounds that it has been pre-authorised and the pre-authorisation code is unique and valid. This will also solve issues with fringe cases (e.g. voluntary organisations and clubs that don't have a registration number).

13. Do you think there should be a standard/uniform call routing mechanism? Please elaborate

The current call routing mechanism is perfect, however, there is a need to enable automated routing of new allocations by ICASA. Given that many licensees already synchronise against the number portability database and update routing automatically in respect of routed numbers, it would be ideal if, in a similar manner, allocations made by ICASA were loaded on a central database that licensees could automatically synchronise against.

It seems crazy that, when a single number is ported, countless licensees can update routing automatically yet, when a block of 10,000 numbers are allocated by ICASA, it can take six to twelve months for those very same licensees to manually add routing in terms of an unreliable manual process that requires a chain of correspondence between licensees. ICASA must make allocation information available in an online database format that licensees' systems can download and synchronise against daily.

If ICASA lacks the systems or skills to achieve that, then we strongly recommend that ICASA speak to the Number Portability Company to see to what extent it may be able to leverage its existing systems to facilitate such database.

14. Do you think the processes and procedures for resolving subscriber complaints and providing subscribers remedies are efficient? Please elaborate.

With respect, ICASA provides no practical remedies for subscribers. The average subscriber has little to no recourse and the CCC process is far too slow and administratively heavy to help a subscriber that has lost the use of their phone number and expects a complaint resolution within hours or days, not months.

We recently had a case of gross non-compliance of the regulations by Vodacom in terms of which a business subscriber's range of DDI numbers was not de-activated by Vodacom and became unreachable from the donor network (Vodacom) for multiple days during which they ignored a series of escalations from Switch Telecom. The matter was only resolved after being escalated to executive level and threats of legal action. Note that the regulations allow a one hour turnaround during Network Sync Time for de-activation (i.e. by latest 6pm on the day of porting), not multiple days!

Realistically, what recourse or remedy did either the subscriber or Switch Telecom have? ICASA has no provision for an urgent CCC hearing and for a company to be unreachable from the country's largest mobile network for an extended period is unacceptable.

It is also not viable for either the subscriber or recipient operator to approach the courts for an urgent interdict whenever a donor service provider breaches the regulations, particularly given how frequently this occurs.

This is why ICASA needs to pay closer attention to the statistical information provided by the NPC particularly in respect of the volumes of timer violations relative to port transactions and compel automation by licensees with high volumes of porting.

15. Do you think that consumers are adequately protected by the Number Portability regulations? If not, please elaborate and provide alternatives.

Refer to the answer to question 14.

Tightening protections in terms of the Number Portability Regulations is not the issue; enforcement is the issue. ICASA should regularly verify compliance against the statistical data provided by the Number Portability Company, issues letters of warnings to licensees that are non-compliance and, if non-compliance persists, take enforcement action.

Attention must also be paid to the nature of the non-compliance. For example, 10% of approvals being two days late is not as critical a breach as even a single de-activation that is 12 hours late. Nonetheless, both constitute non-compliance and should be addressed with proportionate response (ideally liaising with the licensee to improve the compliance as a first measure and taking enforcement action as the final measure) and in a transparent and equitable manner (i.e. where enforcement action is taken, it should be taken consistently).

16. Please submit any other information that you believe the Authority should consider.

N/A.