



15 May 2013

**The Chief Director: ICT Policy Research and Development**

Department of Communications

**Attention: Mr N N Munzhelele**

Per email: [ndivhuho@doc.gov.za](mailto:ndivhuho@doc.gov.za)

ISPA SUBMISSION IN RESPECT OF THE DRAFT NATIONAL BROADBAND POLICY

We refer to the call for submissions on the draft National Broadband Policy ("draft NBP") published by the Department of Communications and attach hereto the submission of the Internet Service Providers' Association (ISPA) in response thereto.

Regards

INTERNET SERVICE PROVIDERS' ASSOCIATION

Per:

ISPA Joint Chairs

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**ISPA Management Committee:**

Graham Beneke, Ant Brooks\*, Marc Furman, David Gentleman,  
Jenny King, Duncan Martin, Jaap Scholten, Mike Silber, Elaine Zinn\* (\*ex officio)

## GENERAL SUBMISSIONS

1. ISPA welcomes the process to revise the current National Broadband Policy for South Africa and is, in general, supportive of the proposed content of a new NBP. ISPA agrees with the Vision set out in paragraph 2.1 of the draft NBP.
2. It is evident, however, that the majority of the critical components of a comprehensive approach to deepening broadband penetration in South Africa have not been addressed in the draft NBP and ISPA understands that these have been deferred to the forthcoming National Broadband Strategy and Broadband Implementation Plan. It is unfortunate that there is currently no time frame specified for the completion of the Strategy and Plan respectively and ISPA urges the Department to remedy this by situating the finalisation of the NBP and Strategy and Plan within the context of the Outline of the ICT Policy Review Process published during April 2013.
3. ISPA urges the Department to finalise the NBP as quickly as possible. It is evident to all observers of the ICT sector in South Africa that we need to move to implementation of policy as quickly as possible.

### Universal access and service vs. universal affordability

4. ISPA submits that the NBP should clearly distinguish between “universal service and access” on the one hand, and “universal affordability” on the other. The overlapping relationship between these two concepts is captured in paragraphs 1.2.6 and 1.2.7 of the draft NBP.
5. As regards the former it is clear that substantial challenges remain, particularly in terms of national backbone and fixed local access networks. But it is clear that massive progress has been made over the past decade in ensuring that the vast majority of South Africans have access to at least one mobile network. Paragraph 1.2.4 of the draft NBP asserts that the South African wireless infrastructure sector covers “just a little over 80% of the South African population” which is borne out by figures provided by the operators themselves in terms of 3G coverage:

Operator	Number of 3G sites	Claimed population coverage
Vodacom	5,538	80%
MTN	3,534 (U2100), 317 (U900)	65%
Cell C	Unknown	72%
8ta	2,000	Unknown

Table 1: Claimed 3G population coverage in South Africa<sup>1</sup>

6. It should be immediately evident that these figures are in stark contrast with the figures provided in the BMI-T survey cited in paragraph 1.2.6 of the draft NBP. While there is approximately 80% population coverage for 3G the BMI-T study reveals that:

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<sup>1</sup> Source: <http://mybroadband.co.za/news/cellular/64462-mobile-broadband-coverage-battle.html> (last updated 13 November 2012)

- 6.1. 64.8% of households in South Africa have no access to the Internet; and
- 6.2. Of the 35.2% of households that do have Internet access, only 3% used their mobile phones to exercise such access.
7. ISPA submits that this comparison of coverage against uptake unequivocally indicates that currently there is a significant percentage of the population which is able to access mobile broadband services but which is not able to afford to use such services or has to use them in a limited manner.
8. It appears therefore that there are far greater gains to be made in terms of increasing broadband penetration through adopting policy which recognises the need to address the high cost of mobile communication in South Africa.
9. ISPA notes that it is generally accepted that a lack of competition in the provision of mobile broadband and other services has resulted in South African consumers experiencing far higher prices than their peers elsewhere in Africa and submits that the promotion of competition in the provision of mobile broadband services should be an explicit priority in the NBP.

#### **Open access**

10. ISPA submits that a South African NBP should explicitly adopt “open access” as a fundamental principle of broadband policy. While there is evidence of a general subscription to this principle throughout the draft NBP, ISPA is of the view that it would nevertheless be preferable to foreground and emphasise the central role which this principle will play in the deepening of broadband penetration in South Africa.
11. ISPA submits further that this term should be explicitly defined in the NBP so that there is a clear and unambiguous policy reference point in the implementation of open access in practice.

#### **Local Loop Unbundling**

12. ISPA notes that there is no mention of Local Loop Unbundling (“LLU”) in the draft NBP and submits that this is an oversight.
13. While LLU is rightly considered as an incidence of the application of the principle of open access, it nevertheless represents a specific regulatory intervention which is applicable to all local access technologies, i.e. LLU as an intervention is not limited to Telkom’s copper network but also finds application in fibre and wireless local access networks.
14. ISPA submits that the final NBP should explicitly reference LLU and the manifest benefits which will flow in terms of access and affordability from the implementation of LLU. As is evident from experience in other jurisdictions, LLU has the potential to address a significant portion of the local access network bottleneck which currently constitutes the biggest obstacle to wider provision of high-quality affordable broadband services.

## **Definition of “Broadband”**

15. ISPA requests that the Department, in its future directions regarding the precise definition to be accorded to the term “Broadband” from time to time, bear in mind the need to define broadband speeds in terms of both download and upload speeds. As South Africans increase their levels of utilisation of cloud-based services, the importance of upload speeds as an element of broadband services will increase and it is important that this aspect is not ignored.
16. ISPA further requests that the Department take steps to align the proposed definition set out in the draft NBP with the definition proposed by the Department in the Electronic Communications Amendment Bill 2012 so as to ensure that there is a single, binding definition of the term in South Africa.

## **Role clarification & institutional arrangements**

17. ISPA welcomes the recognition in the draft NBP that broadband rollout in South Africa to date has been significantly hampered by a lack of co-ordination between Government entities, resulting in a series of fractured and unsustainable initiatives.
18. Notwithstanding this need for co-ordination within Government and between Government and the private sector, ISPA submits that there is also a danger from being too-inclusive with the result that there will be further delays in implementation of the NBP and associated strategies and plans.
19. ISPA understands that there is already an Inter-Ministerial team in place under Strategic Infrastructure Project (SIP) 15 as a committee of the Presidential Infrastructure Co-ordinating Commission (PICC) and it is not clear why this needs to be restated.
20. ISPA is also concerned that the proposed Inter-Ministerial Committee is too broad in its composition and that this will inevitably lead to scheduling difficulties. It is accepted that deepening broadband penetration is a cross-cutting intervention which will facilitate delivery across Government departments, but ISPA submits that a clear distinction should be drawn between those departments which are directly involved in implementation and those departments which have an interest in implementation. This distinction would dictate that the proposed Committee should include the Departments of Communications, Public Enterprises, Finance, Trade and Industry, Science and Technology and Environmental Affairs. ISPA does not support the inclusion of the Departments of Basic and Higher Education and Health on the proposed Committee.
21. Finally in this regard, it is obvious to all observers that the current institutional arrangements are failing South Africa, primarily as a result of a lack of capacity on the part of the Department, ICASA and USAASA to implement their strategic plans and applicable policy. These capacity and implementation challenges have existed for years and it is self-evident that no amount of policy review and redrafting will be effective in the absence of concrete steps to resolve these challenges.

## SPECIFIC SUBMISSIONS ON KEY POLICY AREAS

### Access to international backbone networks

22. ISPA welcomes recognition by Government of the need to ensure sufficient international connectivity into the future and that the availability of reliable, affordable and secure international backbone infrastructure is a critical component of the broadband service delivery and value chains.
23. ISPA disagrees, however, that “further interventions are required to bring about further competition in the provision of international bandwidth”.
24. ISPA refers the Department to the excellent resources created on the Many Possibilities blog (<http://manypossibilities.net>) relating to undersea cables servicing and planned to service Africa, including the table reproduced below:

Cable System	Capacity (Tb/s)	Completion Date
Seacom	1.28	July 2009
EASSy	4.72	July 2010
TEAMs	1.28	September 2009
WACS	5.12	Q3 2011
MainOne	1.92	Q2 2010
GLO1	2.5	Q3 2010
ACE	5.12	Q2 2012
SAex	12.8	Q2 2013
WASACE	40	2014
BRICS	12	2014

*Table 2: Current and planned international connectivity Africa<sup>2</sup>*

25. As is evident from the diagrammatic representation of this table set out below, not all of these cables land in South Africa but all of them do have a role to play in ensuring multiple redundant routes for local operators.

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<sup>2</sup> Source: <http://manypossibilities.net/african-undersea-cables/> (last updated November 2012)

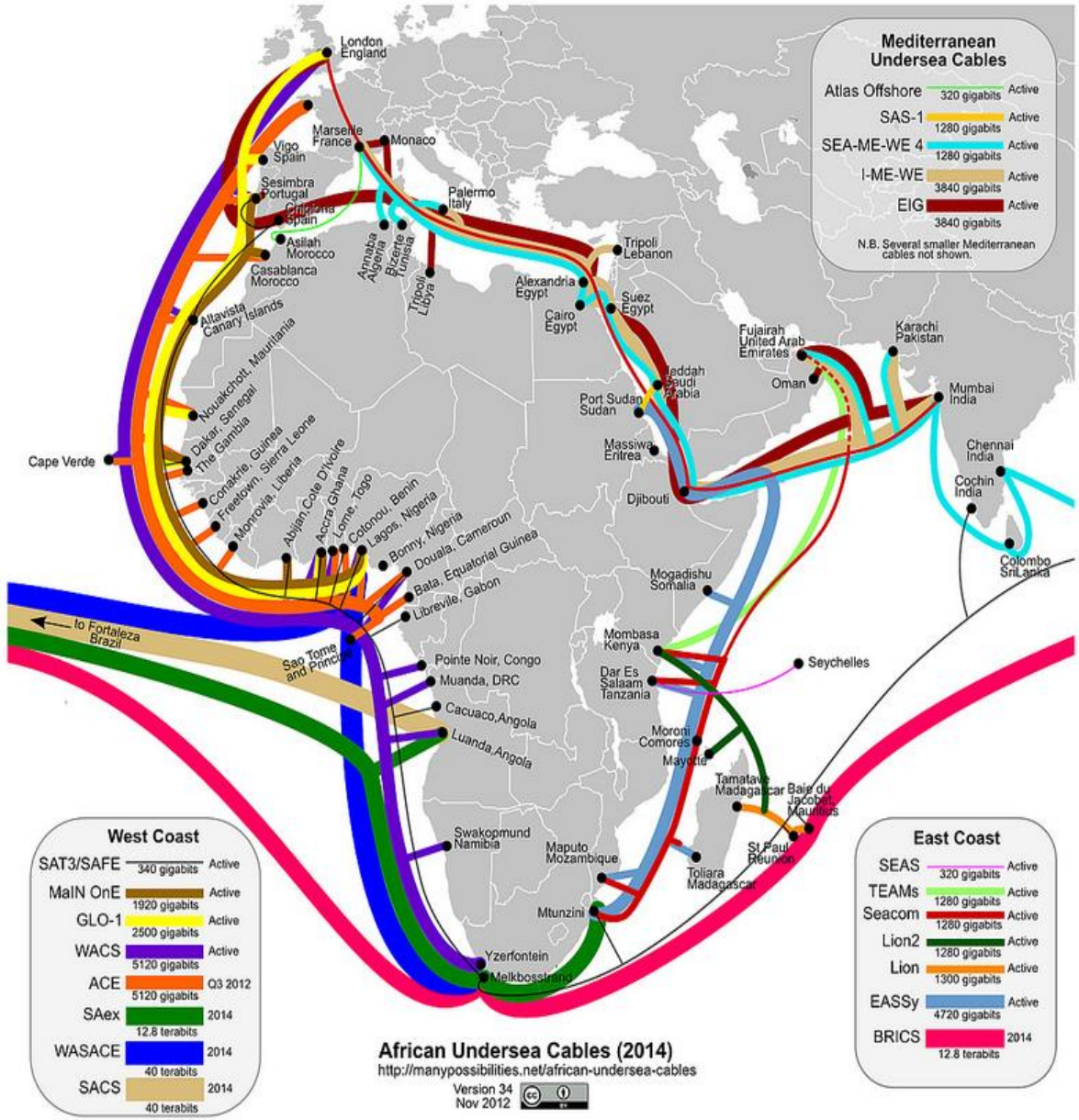


Figure 1: Diagrammatic representation of current planned undersea cables serving Africa<sup>3</sup>

26. The total international bandwidth capacity expected to be available at the end of 2014 is 86.74 Tb/s of which approximately 77 Tb/s will land in South Africa. This represents an exponential increase on the 340 Gb/s available prior to 2009 in the form of the SAT3/Safe cable system which fell under Telkom’s monopoly control.
27. In keeping with greater supply and greater competition in the provision of international connectivity services, prices have decreased dramatically since mid-2009, a trend which is likely to continue and perhaps even accelerate over the short term.

<sup>3</sup> Source: <http://manypossibilities.net/african-undersea-cables/> (last updated November 2012)



28. ISPA disputes the correctness of the statement in paragraph 1.2.2 of the draft NBP to the effect that reductions in the cost of international connectivity have “not translated into lower broadband costs for consumers”. This statement is in no manner substantiated and is, ISPA submits, at odds with empirical evidence.
- 28.1. Lower international connectivity prices and the ability of broadband providers to source their own international connectivity is one of the primary factors in driving down the usage costs (i.e. excluding the Telkom line rental) of fixed broadband in South Africa. Cheaper international connectivity has also fuelled the growth in the number of uncapped broadband offerings available to consumers in South Africa.
- 28.2. It should be obvious in any event that, were we to return to the SAT3 monopoly, there would be an immediate and dramatic increase in fixed broadband retail pricing.
- 28.3. Specific interventions such as the discounted international bandwidth provided to the Tertiary Education and Research Network (TENET) by Seacom provide further evidence of direct consumer benefit. This discount was passed onto to higher education institutions in its totality resulting in immediate improvement in affordable access to South African students, academics and researchers.
29. ISPA submits that the rapid increase in the provision of international connectivity since 2009 is due to actual and forecasted increases in demand by South African and African users, which in turn has created a commercial case for submarine cable providers to enter the market. The fact that there is currently an over-supply of international connectivity is primarily due to the operation of market forces (although the new licensing framework introduced under the ECA and the unintended consequences of service licence liberalisation through the licence conversion process also played a role).
30. ISPA submits that the NBP should acknowledge the importance of international connectivity to South Africa’s international competitiveness and its regional and global trade relationships, but that it should simultaneously acknowledge that there is currently a competitive industry for the supply of international connectivity. This state of affairs can be reviewed in future iterations of the NBP and related policy.
31. Stated differently: the current infrastructure bottlenecks in the provision of quality, affordable broadband services to all South Africans occur in national backbone networks, metro-reticulation networks and local access networks, not in international backbone networks. Our focus should accordingly be on the former and not the latter.
32. ISPA supports the sentiment underpinning the policy statement that all “submarine cable landing stations are declared essential facilities and shall be accessible, transparent, fair and non-discriminatory”. Presumably the reference to “essential facilities” is to this term as it is defined in the ECA<sup>4</sup>.

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<sup>4</sup> “**essential facility**” means an electronic communications facility or combination of electronic communications or other facilities that is exclusively or predominantly provided by a single or limited number of licensees and cannot feasibly (whether economically, environmentally or technically) be substituted or duplicated in order to provide a service in terms of this Act;”

33. ISPA submits, however, that section 43(8) of the ECA provides ICASA with the power to prescribe a list of essential facilities, a power which it has not as yet availed itself of. It may, accordingly, not be competent for such a declaration to be made in the NBP itself. As a result it may be necessary to amend the language used to direct that ICASA exercise its powers in terms of section 43(8) of the ECA to declare all submarine cable landing stations as essential facilities.

34. The Department should note that the current wording of 2.3.1.4(c) needs revision as it omits to specify that it is access to landing stations which must be transparent, fair and non-discriminatory, i.e. it is not the landing station itself which is required to be transparent.

“All submarine cable landing stations are declared essential facilities and shall be accessible in a transparent, fair and non-discriminatory manner.”

35. ISPA submits that it may be preferable to use the term “open access” as a consistently-employed shorthand for “transparent, fair and non-discriminatory access” throughout the NBP.



## **Access to national backbone networks**

36. ISPA is in broad agreement with the policy spelt out in this section of the draft NBP.
37. As set out in the previous section, bottlenecks in the provision of affordable national backbone services remains an obstacle to lowering the cost of broadband services in particular. This is currently being addressed to some degree through both the public and private sectors and it is likely that the benefits of network deployments by Infracore, Fibreco and others will bring some relief in the short-term. ISPA has noted that activity by new entrants providing national IP transit services has already resulted in significant downward pricing pressure.
38. ISPA acknowledges that there is a case for strategic Government intervention to ensure backbone networks are deployed in what are currently regarded as commercially non-viable areas. The key intervention is to provide wholesale access and lower the input price for the competitive services market so as to facilitate broadband service provision in these areas.
39. ISPA is aware that policy relating to national infrastructure projects such as national backbone networks flows more directly from SIP 15, falling under the PICC and notes the alignment between the draft NBP and SIP 15.
40. ISPA's principle concern relating to this section is that it does not set out with sufficient clarity the intersection between the activities of Government and those of the private sector, and it is to be hoped that this will be a focus of the future Implementation Strategy.
41. Paragraph 2.3.2.2 of the NBP refers to operation of wholesale networks on "open access and non-discriminatory principles". ISPA repeats its call for clarity on the meaning to be ascribed to the term "open access" and that this term is used consistently throughout the NBP. ISPA regards the principle of non-discrimination as being an element of open access and it would therefore be tautological to refer to "open access and non-discriminatory principles".
42. ISPA is not certain as to the content of and process for the development of "wholesale regulations" and looks forward to engaging further with the Department in this regard in the development of the Broadband Plan and Implementation Strategy.

## Local access networks

43. Local access networks constitute the key infrastructure-based obstacle preventing wider-spread take-up of broadband services in South Africa, and ISPA submits that this should be the critical focus of the NBP for the short-to-medium term.
44. ISPA agrees that, in the long term, broadband services need for the most part to be delivered over fixed networks. Access to radio frequency spectrum suitable for the delivery of broadband services is, however, in the short term, the single-most important bottleneck to be addressed in expanding local access to affordable broadband in South Africa.
45. ISPA supports the inclusion in the draft NBP of:
  - 45.1. Explicit recognition of the need to promote the expansion of last mile access infrastructure and technologies to the premises and home.
  - 45.2. Acknowledgement that fibre optic access networks will be the core solution to South Africa's long-term broadband requirements, supplemented by wireless and satellite connectivity where required.
  - 45.3. Acknowledgement of the urgent need to make radio frequency spectrum available for mobile broadband applications to facilitate greater competition in the provision of wireless local access networks and thereby address the comparatively high prices charged for mobile broadband services in South Africa.
  - 45.4. Explicit recognition that it is policy to promote infrastructure and service-based competition in South Africa.
46. ISPA notes the reference to "infrastructure sharing in non-economically viable areas by way of a wholesale open access network" in which areas "competition will be confined to the provision of services". ISPA supports this concept in principle, noting that there is no reason to limit the benefits of infrastructure sharing to non-economically viable areas only and that a clear regulatory framework must be developed if we are to avoid the mistakes of the recent past resulting from artificially limiting infrastructure-based competition.

## **Availability of radio frequency spectrum for broadband**

47. ISPA supports the policy proposals set out in this section, with particular reference to the recognition of the need to ensure that allocation and assignment of radio frequency spectrum must advance competition in the provision of wireless local access services in South Africa.
48. ISPA finds it regrettable that South Africa still does not have a clear idea of current levels of usage and availability of radio frequency spectrum and calls on the Department to release the results of the audit undertaken in terms of a tender awarded by it.
49. The draft NBP in truth does not add anything to the sum total of policy pronouncements and aborted assignment processes which have characterised spectrum management in South Africa since 2006.
50. ISPA respectfully submits that we do not have the luxury of further time for restatements of policy and that the focus as between the Department and the Authority must be on implementation.
51. ISPA further submits that:
  - 51.1. The NBP should make specific reference to the development of innovative spectrum management techniques such as database management.
  - 51.2. The NBP should reference the National Radio Frequency Spectrum Policy.

## **Minimising infrastructure rollout costs**

52. ISPA supports and agrees with the policy proposed in this section of the draft NBP, but is constrained to note once again that the majority of such proposed policy amounts to a restatement of existing policy which has not been implemented.
53. A prime example of this is the statement in paragraph 2.3.5.4 that “there is a need to fast track the development of the rapid deployment guidelines on electronic communications facilities and establish a one-stop shop to facilitate approval of way leaves”. Notwithstanding that these guidelines were first mooted in the ECA in 2006 and the critical need to facilitate and reduce the cost of broadband infrastructure development, this critical intervention has not been prioritised or finalised.

## Miscellaneous

54. ISPA suggests the following technical amendments to paragraph 1.1.1 of the draft NBP:

“Broadband is generally defined as a high-speed, high capacity transmission medium that can carry signals from multiple independent network carriers. There is no general consensus on the precise speed at which a network connection is deemed to be broadband service both at local and at international level. For example, even within the International Telecommunications Union (ITU), the different sectors in alignment with their functions, define broadband differently. The standardisation sector defines broadband as a transmission capacity that is faster than primary rate Integrated Services Digital Network at 1.5 ~~Megabits~~ megabits per second (Mbps) to 2 megabits per second (Mbps) whilst the Development Sector defines it to be 256 ~~Kilobits~~ kilobits per second (kKbps). Comparative research has demonstrated that broadband speeds in different countries vary between 128 kbps and 10 Mmbps.”

55. ISPA submits that the Competition Act 89 of 1998, as amended should be included in the list of acts making up the legislative framework for the NBP as set out in section 1.4 of the draft NBP. Consideration should also be given to the inclusion of:

55.1. The Draft Infrastructure Development Bill as and when this is finalised; and

55.2. The Constitution of the Republic of South Africa, particularly given the inclusion of a number of fundamental rights from the Bill of Rights in the Draft ICT Review Policy Framing Paper released in May by the Department and currently subject to a public participation process.

56. The World Bank estimates linking broadband penetration and GDP growth as cited in paragraph 1.1.2 of the draft NBP should be used with caution. ISPA submits that it is sufficient and preferable to state that there is consensus that there is a positive correlation between broadband penetration and growth in GDP.

57. ISPA respectfully suggests that the draft NBP be subjected to the scrutiny of a professional copywriter and proof-reader prior to finalisation.

## Conclusion

58. We trust that the Department will find the above submissions of value in its efforts to finalise the draft Policy and place ourselves at your disposal should any further assistance be required.