

A Framework for a Comprehensive National Broadband Strategy in South Africa

DRAFT FOR DISCUSSION - 18 March 2009

Preamble

The world is in the midst of a global financial crisis which poses a threat to all emerging markets including South Africa. How we respond will shape the next 5 - 10 years of our future. All sectors and stakeholders in South Africa will have to work closely together to turn the impending crisis into an opportunity. Not only is it necessary to mitigate the impact on jobs, our economy and society but it is also critical to stimulate recovery and address a number of development deficits, and job creation, at the same time. Broadband offers one of the ways forward to do this.

Over the last five years, developed countries have taken steps to invest in broadband as a driver of economic development. In South Africa we have pursued a number of strategies to promote affordable broadband. While these have yet to deliver, we are on the cusp of major broadband infrastructure rollout. Seacom, a submarine cable initiative, will link South Africa to India and Europe by mid 2009, breaking the monopoly of Telkom's SAT3 cable and bring down the cost of international bandwidth. The judgment in the Altech legal challenge opens the way for anyone to build and operate a high speed broadband network further reducing the barriers to deploying broadband internet.

Broadband is not only an issue of high speed networks, it also provides a platform for disruptive Web 2.0 technologies that enable ordinary people to produce and distribute content on the Web - as the success of YouTube, Flickr, and Facebook demonstrate. These technologies are likely to become as ubiquitous on mobile devices as they are on more conventional broadband infrastructure. This poses a challenge for local content industries to generate and distribute content for a broadband world. Content is a critical driver of the demand for broadband infrastructure and services, while broadband provides a new means of content production and distribution.

While many industries are currently facing crises in their service delivery and business models with the growth of the Internet (e.g. print and media industries) and many fear job losses that can come from increased digitization, crises also provide the opportunity to shift to new business and development models if catalytic support can be provided to increase awareness, build skills, invest in content, and explore how to shift to new more sustainable models, since the Internet is here to stay.

Broadband can also help facilitate e-citizenship and e-governance in order to enhance relations between citizens and government to build and strengthen our democracy.

Improved availability of electric power is a necessary component for rolling out broadband, particularly in rural areas. The environmental challenges of our times demand an exploration of alternative sources of energy to sustain broadband infrastructure.

Broadband penetration in South Africa lags behind countries with a similar level of development such as the Czech Republic, Poland, Hungary and Turkey. South Africa has fallen into fourth place in internet penetration in Africa, which is a shocking position for the continent's biggest economy to be in. One of the reasons for this is that there hasn't been a coherent policy framework to guide the development of broadband. The election of a new government provides an opportunity to look at the policy framework with fresh eyes and to consider the inter-related components needed to develop a coherent national broadband strategy.

To stimulate discussion on what would constitute the broad framework for such a national broadband strategy, here are some of the elements that the organizers of the National Broadband Forum felt would be building blocks for a new comprehensive strategy.

Draft Framework

Goal

All South Africans should have affordable broadband access to the Internet.

How to achieve this goal

Supply side objectives: Take steps to maximize fibre and wireless broadband infrastructure in urban and rural areas

Means to do so: All stakeholders should commit themselves to the following approaches:

- a. Incentivise the building of more fibre and wireless broadband infrastructure
- b. Prepare regulatory frameworks for fair access to and sharing of infrastructure, where appropriate, in the interests of maximizing the network effect of having as many people online as possible.
- c. In the construction of municipal broadband network to meet their public administration needs local government should be required on a cost based, non-discriminatory basis to make available their considerable excess capacity to the public either as a public services or for commercial purposes.
- d. A strategy to support the roll out of broadband networks to smaller municipalities to ensure equitable access to broadband outside of major centres as part of a public works initiative to create jobs, stimulate private investments, and deliver public services.
- e. Government must make the spectrum needed for wireless broadband available - timeously, equitably and affordably - to maximize the rapid deployment of infrastructure across the whole country.
- f. Where possible, an integrated approach to stringing cable in cooperation with other infrastructure build-outs should be coordinated, particularly with regard to power lines and roads and in new spatial developments.
- g. Research into renewable and alternative energy sources should be undertaken to find ways of powering up broadband connectivity, computers and handsets in areas of low power. All new infrastructure should rely on renewable energy sources from the outset.

Demand side objectives: Take steps to stimulate the provision of content and use by citizens, private sector and consumers for using broadband

Means to do so: All stakeholders should commit themselves to the following approaches:

While the availability of affordable bandwidth will stimulate the development of commercial content and services, strategies to incentivise the production of necessary uneconomic content and services need to be developed, these could include:

- a. National, provincial and local governments should prioritise the production of digital content, particularly in local languages, to drive the take up of e-government services which have the potential to improve service delivery in a broadband environment.
- b. Government should support R&D and innovation in content, networks, software and new technologies by creating a non-discriminatory business and regulatory environment that balances the interest of suppliers and users in areas like intellectual property rights, digital rights management and copyright. Government and the private sector should support libraries, archives, and

educational institutions to digitize content and make the transition into a broadband environment.

- c. Content industries should be incentivised to develop digital broadband content.

e-Governance and e-citizenship objectives: Take steps to enhance e-governance and e-citizenship in a broadband environment.

- a. Without compromising existing services, national, provincial and local governments should digitize and distribute public sector information and improve access to public sector content online in anticipation of affordable broadband access for all.
- b. The mandate of the Media and Diversity Development Agency should be expanded to support the media to transition to a broadband environment.
- c. Universal Service and Access policy should be expanded to support community-based networks.
- d. National, provincial, and local governments should prioritise the recruitment of staff who understand broadband technology and the potential of new media.
- e. Non-confidential government data, especially geographic data, should be opened up to allow external parties to interface with government in innovative ways.

Education objectives: Steps must be taken to stimulate the adoption and use of advanced broadband connections in order to fully realise the potential of ICTs and digital media to support learning and teaching.

Means to do so: All stakeholders should commit themselves to the following approaches:

- a. All South Africans must have access to broadband-enabled ICTs, and know-how to use them effectively.
- b. Every school and university student, teacher and lecturer must have ICTs that can connect to the network through high speed broadband connections to be able to communicate, collaborate, and participate in effective learning and teaching practices.

Assessment of progress objectives: The implementation of the national broadband strategy should be monitored according to an agreed set of indicators in order to ensure the goal and objectives are met.

Means to do so: All stakeholders should commit themselves to the following approaches:

Specific timetables and benchmarks should be established to help encourage successful implementation and advancement of national broadband policies, incentives or programs.

- a. A system for regular and timely collection and publication of data concerning the deployment, adoption, and use of high-speed broadband should also be instituted to ensure that our national goals and timetables are being met.
- b. South African broadband networks should provide South Africans with the network performance, capacity, and connections they need to contribute to the country's social, cultural and economic development and to compete successfully in the global economy.

This draft framework was developed by the co-conveners of the South African National Broadband Forum, 24 March 2009, <http://www.apc.org/en/events/africa/south-african-national-broadband-forum>:

The Association for Progressive Communications - www.apc.org; SANGONeT (Southern African NGO Network) - www.sangonet.org.za; South Africa Connect - www.southafricaconnect.org.za; and The Shuttleworth Foundation - www.shuttleworthfoundation.org