National Broadband Policy
South Africa Connect

Portfolio Committee on Communications

18-19 February 2014
Draft broadband policy – 2010 Broadband policy revised and published for comment in April 2013
Revision on basis of public submissions & evidence emerging from broadband plans of other countries & international experts meeting:
• Need to understand broadband as ecosystem
• Lack of reference to role of regulator
• Narrowness/outmoded definition/targets
• Absence of demand stimulation measures
• Identification of strategies, mechanisms to achieve objectives
• Specificity on who does what – co-ordination, operations, enforcement
• National, provincial and municipal co-ordination
Constitution: “... improve the quality of life of all citizens and free the potential of each person” and, in doing so, enables equality in the rights, privileges and benefits of citizenship, including the guarantees of freedom of expression and association in the Bill of Rights in digital world. “

NDP: The ICT sector by 2030 will underpin the development of a dynamic and connected information society and a vibrant knowledge economy that is more inclusive and prosperous. A seamless information infrastructure will...

New Growth Path: One of the job creation drivers identified as part of the New Growth Path, the national 5-year economic plan for the country, is the element of the knowledge economy – an economy that is underpinned by access to affordable high speed broadband...

Strategic Integrated Project (SIP) 15: Expanding Access to Communication Technology which “to ensure universal service and access to reliable, affordable and secure broadband services by all South Africans... prioritising rural and unser-serviced areas... stimulating economic growth.”
Rationale for prioritising Broadband

- Strong evidence of linkages to investment in broadband economic growth and improvements in the economy
- Direct opportunities for manufacturing, service provision and job creation, but primarily enhancement of communication flows that improve productivity and efficiency
- Need to reach critical mass to enjoy network effects → access, use and priced right → general purpose technology
- Historically state owned monopoly → transfer to private ownership and risk → a public-private interplay where the relative powers and resources of both sectors are leveraged to achieve wide-based national benefit
- Success dependent on appropriate market structure, clear institutional arrangements, high levels of state co-ordination across sector, and tiers of government
Problem statement

- Lack of affordable always-available, high speed and quality bandwidth required by business, public institutions and citizens impacted negatively on the country’s development and global competitiveness
- Significant sector in own right but key service sector.
- **High input cost for business/ disincentive for investors**, negative impact on job creation – e.g. BPO
- Considerable sector growth despite economic downturn.
- But **universal access** objectives not met
- Unintended, negative outcomes of policy – access/pricing.
- Descent down global indices – ITU Development Index, WEF E-readiness Index, WEF Competitiveness Index, Human Development Index
- (See NDP Diagnostic Report)
To present a vision, strategy and a long-term plan that is immediately implementable and that will catalyse broadband connectivity in South Africa

- **robust and cost effective broadband** solution to **universal, affordable broadband access**
- **market structure** and **associated regulatory regime** required to induce sufficient **public and private investment**
- mechanisms for greater **co-ordination at all tiers of government**, to enable more equitable access to broadband and to manage the **removal of impediments to broadband network extension**
- **co-ordination between state owned entities** through clear role definition, integration of planning, monitoring and evaluation
- Facilitate **infrastructure planning** through the mapping of existing **broadband networks**, **co-ordination of deployment plans of operators** and **infrastructure sharing** in order to limit the duplication of civil works
- **vision, model and plan towards a world class open-access national broadband network** and harnessing **public and private** sector contributions, capabilities and resources.
SOUTH AFRICA CONNECT: A national project that will galvanise the capability, resources and energy of public and private actors towards realising a bold vision of a connected society.
affordable, ubiquitous broadband to meet the diverse needs of public and private users, formal and informal business, and consumers and citizens

policy and regulatory conditions that enable investment by public and private sector players to reach South Africa's broadband ambition

efficient public sector delivery, including e-government services - national, provincial and municipal - have broadband connectivity, extended to communities

public and private enterprise, formal and informal, able to fully exploit the efficiencies offered by broadband and its potential for innovation

a strong national skills base developed for the country to be a proficient and globally competitive knowledge economy

create environment for a vibrant creative and software industry producing content and applications relevant to meet the needs of the diverse users in the country
Definition

An ecosystem of high capacity, high speed and high quality electronic networks, services, applications and content that enhances the variety, uses and value of information and communication for different types of users.

Vision

In line with the broader vision of the NDP, the 2020 Vision for broadband is that by 2020, 100% of South Africans will have access to broadband services at 2.5% or less of the population’s average monthly income.
Reviewed periodically and supplemented by pricing and quality of service targets as well as speed of installation and fault repair.

### Broadband Targets

<table>
<thead>
<tr>
<th>Target</th>
<th>Penetration measure</th>
<th>Baseline (2013)</th>
<th>By 2016</th>
<th>By 2020</th>
<th>By 2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broadband access in Mbps user experience</td>
<td>% of population</td>
<td>33.7% Internet access</td>
<td>50% at 5Mbps</td>
<td>90% at 5Mbps</td>
<td>100% at 10Mbps</td>
</tr>
<tr>
<td>Schools</td>
<td>% of schools</td>
<td>25% connected</td>
<td>50% at 10 Mbps</td>
<td>100% at 10Mbps</td>
<td>100% at 1Gbps</td>
</tr>
<tr>
<td>Health facilities</td>
<td>% of health facilities</td>
<td>13% connected</td>
<td>50% at 10Mbps</td>
<td>100% at 10Mbps</td>
<td>100% at 1Gbps</td>
</tr>
<tr>
<td>Public sector facilities</td>
<td>% of government offices</td>
<td>50% at 5Mbps</td>
<td>100% at 10Mbps</td>
<td>100% at 100Mbps</td>
<td>100% at 100Mbps</td>
</tr>
</tbody>
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A new Broadband Plan – Digital South Africa:

Four-pronged strategy to bridge the gap

Supply side interventions –
- Public/private investment/competition
- Core/access networks
- Infrastructure sharing/co-ordinate build outs
- Universal access – spectrum

Demand side interventions –
- Affordability of services/devices
- Government leadership
- Regulation
- ICT skills development/e-literacy
- Local content, applications, niche manufacturing stimulation

Digital readiness:
Policy, regulation & institutional capacity
Monitoring and Evaluation

Digital Development:
Public sector demand aggregation to address critical gaps

Road mapping

Digital Future:
National Broadband Network

Digital Opportunity:
Skills & institutional capability, R&D, Innovation & entrepreneurship
Content and Applications

10 year plan
Digital readiness - laying the foundations for South Africa’s broadband future

Establishment of Broadband Council

Institutional capacity – adjust institutional arrangements - ICASA, USASA, USF

Enabling investment in infrastructure build

- Efficient permit granting
- Access to and use of existing physical networking infrastructure
- Co-ordination and exploiting synergies with other civil works
- Coordination of civil works
- Spectrum

Legal and regulatory framework

- Cybersecurity framework, POPI
- Align existing laws, ECA, ECTA, ICASA, Broadband Infraco Act

Data, information and indicators

- National ICT indicator portal, transparency, M&E, UN reporting
International connectivity

• Before 2009: 0,34 Tbps
• Today: 11,5 Tbps

Domestic backbone or National Long Distance Network

• > 50 000km

Metropolitan area networks

• Considerable core network infrastructure

Access networks

• Biggest gap

On-site (LAN) connectivity and devices

• Mobile revolution has decreased cost significantly
86% of the South African population resides within 10km of a fibre node.
Digital development - addressing needs and ensuring sustainable rollout

- Pooling of public sector demand
  - smart government procurement
  - anchor tenancy
- Closing infrastructure gaps, the competitive procurement
- Addressing public sector connectivity (and e-readiness)
  - Public sector
  - Schools
  - Health
  - Public WiFi
- Incentivising investment in network infrastructure to ‘uneconomic’ areas through smart procurement
Digital Future – a roadmap towards South Africa’s National Broadband network

- South Africa’s National Broadband Network will be built as a network of networks, which may involve:
  - Rationalisation of SOCs – Broadband Infraco, Sentech, communication networks of other infrastructure networks (power)
  - Examine viability and competitive effects of open access broadband networks – fibre and wireless.
  - A high capacity, open access wholesale network that leverages existing (brownfield) infrastructure and private capital to reach underserved areas (greenfield) through voluntary incorporation.
  - Open access principles: that open access rules apply to all public investments (state-aid)
Realising Digital Opportunity

**Supply side skills**
- Engineering and technical, software development, design, creative, vocational (call centre operations & management)

**Demand side skills**
- e-Literacy
- Institutional capability and capacity (e.g. – schools’ ability to leverage broadband for enhanced educational outcomes)

**R&D and innovation and entrepreneurship**
- Promoting R&D in ICT South Africa’s ICT RDI Roadmap

**Content and Applications: App**
- e-Government services
- Local content, diversity of content supply and use
- e-Skills in primary, secondary and tertiary education
- Promoting development of applications, content and services locally
**Digital readiness**

**Policy, legal & regulatory (institutional) framework**
- Coordinated and integrated action on network builds
- Removal of administrative and regulatory bottlenecks (rights of way)

**Connected Government**
- Aggregation of public sector demand
- Infrastructure extensions

**National Broadband Network**
- Affordable, high speed broadband
- Universal coverage through multiple delivery modes
- Open access wholesale network

**Skills development**
- ICT curriculum/e-literacy
- Skills to secure and create jobs to ensure equity and inclusion

**Digital development**

**R&D and innovation**
- Quality of life
- National competitiveness

**Digital future**

**Applications and local content development**
- Vibrant creative and software industry

**Digital opportunity**

- Enforcement of wholesale access regulation
- Rationalisation of state-owned companies
- Appointment of Broadband Council

- Health and education connectivity prioritised

- Fibre and terrestrial wireless and satellite
- Public sector anchor tenant

- Democratisation, Economic Growth, Development, Job Creation