

## Policy Brief, January 2016



### Barriers to entry in telecoms

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#### Introduction

Telecommunications is one of the facilitators of economic growth and participation. As such, countries care about the competitive outcomes in the market. When competition works in telecommunications it can result in expanded services, lower prices, and stimulate innovation.

The South African record of telecommunications policy and regulation has, however, been poor. Telkom was entrusted to invest in the sector and ensure access. The two first movers in mobile telecommunications established a strong duopoly. Entrants were expected to compete with incumbents while the playing field was far from level. This has resulted in very poor outcomes which have taken lengthy competition and court cases to address just in voice communication and even then the successes have been partial.

Despite this poor track record Telkom has recently been identified as the “broadband champion” to facilitate universal broadband

roll out. SA Connect requires 90% of South Africans to have access to 5 Mbps by 2020, while 50% of citizens must connect at 100 Mbps. The policy requires access to quality and affordable broadband. This is happening at a time when the demand for broadband is growing at rapid rates. Forecasts of broadband growth is estimated at a CAGR of 47% and 36% for consumer and business demand, respectively for the period between 2014 and 2019.<sup>1</sup>

Sufficient infrastructure deployment is required to support the SA Connect access and speed and competitive rivalry is important for making the broadband affordable.

A CCRED study of the telecoms sector reviews the barriers to entry and expansion in the sector, much of which directly impacts the ability of South Africa to deliver on SA Connect.<sup>2</sup> The study draws on three case studies of entry: by wireless providers; Dark Fibre Africa; and Cell C. These case studies are analysed to understand the challenges faced by entrants in the sector and the

<sup>1</sup> Forecasts by Cisco VNI Available:  
<http://www.cisco.com/c/en/us/solutions/serviceprovider/visual-networking-index-vni/index.html>

<sup>2</sup> CCRED Working Paper 2016/1,  
[www.competition.org.za](http://www.competition.org.za)

impact of entry on outcomes. This brief draws together the main findings and considers policy implications.

### **Key barriers to entry and expansion**

The study identified the following key barriers to entry.

#### *Access to facilities*

Obtaining rights of way/wayleave approval to trench and deploy infrastructure is often difficult. The processes can vary significantly across different municipalities and public entities, which introduces unnecessary complexity and uncertainty and the approval process can be quite lengthy. Turnaround period for wayleave approval can take between 4 weeks and 6 months from municipalities, and between 9 – 12 months from entities such as SANRAL and Transnet. However, firms have waited more than 8 years for approval.

There are also instances where firms have had to litigate to be able to roll out.<sup>3</sup> This delays rollout and ability of firms to compete and will have a negative impact on achieving the SA Connect goals. There has also been difficulties in gaining access to Telkom's poles and ducts and to link to their exchange, and exorbitant pricing in the rare instances that access is granted.

#### *Slow pace of regulation*

The delays in allocating spectrum have limited the ability of firms to deploy 4G technology, which delivers faster speeds. The delay is in part a result of the delayed digital migration to avail spectrum for allocation to mobile operators. ICASA published the guidelines for allocation in

2013 but there have been no allocations to date. Mobile operators can increase capacity by using more spectrum, using better technology or building more base stations but spectrum is the more cost effective option. Players resorted to procuring spectrum through mergers and acquisitions which have not been concluded due to competition concerns.

Entrants have also struggled to acquire spectrum. Smile Communications has been waiting for the regulator to process its application since 2009. Smile, a Johannesburg based firm, has invested heavily in LTE networks in other African countries focusing on rural areas and providing a competitive discipline to incumbent firms.

Local Loop Unbundling (LLU), which would enable access by multiple providers to the last mile infrastructure (the most expensive network layer), has been part of government policy since 2007 but the process is yet to start. The delay is impeding innovation and competition around broadband services. Neotel tried to gain access by lodging a facilities leasing request with Telkom, this was rejected and the finding of the Complaints and Compliance Committee (the dispute resolution body) was that ICASA should have issued LLU regulations.

In pursuit of services-based competition, the Electronic Communications Act (ECA) has regulations for leasing wires, cables, antenna, masts and radio equipment on condition that it is technically and economically feasible without adverse material consequences. Cell C has alleged

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<sup>3</sup> High Court of South Africa (KwaZulu-Natal Division), Case Number 2763/2014, The Msunduzi Municipality v Dark Fibre Africa (Pty) Ltd and

Supreme Court of Appeal of South Africa, Case Number 20119/2014, The Msunduzi Municipality v Dark Fibre Africa (Pty) Ltd.

that requests for sharing facilities from competitors has been met with resistance or outright refusal. The poor enforcement of the facilities regulations, including leasing and national roaming delays the progress of services competition and infrastructure competition only benefits the incumbent firms.

### *Strategic responses by incumbents*

The differential between retail prices for off-net (between different networks) and on-net (between same network) calls referred to as 'closed network pricing' raises switching costs making it difficult for challenger networks to build a customer base. Incumbent firms build "communities of interest". For example, the incumbent operators have MTN Zone and Vodacom4 less with dynamic discounting for onnet calls which, based on location and the time of day, are up to 100%. In 2013, 95% of MTN's pre-paid subscribers were on MTN Zone, highlighting the success of these plans. Cell C has lodged a case with the Competition Commission in 2013 alleging that the conduct amounts to price discrimination in contravention of the provisions of the Competition Act.

### **Critical insights**

National champions and first-movers tend to capture the agenda and rarely deliver on the expectations, whilst a plurality of rivals delivers better outcomes. For example, the competitive interaction between the challenger operators and the incumbents led to a fall in mobile voice prices between 2011 and 2015. It could have happened faster and earlier.

Other episodes of entry have delivered substantially improved economic outcomes. When Seacom entered the market for undersea cables in 2009 the cost of bandwidth for typical Internet Service Providers (ISPs) fell by 35%.<sup>4</sup> Prior to Seacom's entry the only cable available was Telkom's SAT-3 cable. Another example is the 87% reduction in the price of transmission over long distance fibre between Bloemfontein and Johannesburg, between 2013 and 2014 due to the construction of two new fibre links by Fibre Co (open access) and the NLD Consortium.

To make effective rivalry possible there is a need to regulate for competition. After the mobile termination rates (MTRs) decision by ICASA in 2011 the challenger operators were better able to compete with incumbent operators which resulted in lower prices. ICASA reduced the termination rates and created asymmetry, whereby the challenger operators paid lower rates to terminate calls on the incumbents' networks. The MTRs decision led to a R1.09 reduction of the termination rate with 81% and 91% pass through to Vodacom and MTN consumers, respectively. Prices to customers declined by 88c on the Vodacom Network and 99c on the MTN network, from the period 2010 to 2015. The total consumer benefit generated by the MTRs for MTN and Vodacom customers amounts to R47.2 billion over the period 2010 to 2015. The incumbent firms also did not incur the losses that they had warned about as call volumes increased.

The call termination rates are still higher than the effective voice rates charged by the Incumbent networks. In 2014 the

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<sup>4</sup> Stucke, W. (2015). Building a case for rural broadband. Presented at the Future Wireless Technologies Forum, July 2015.

Vodacom CEO reported that their voice bundles were priced at an effective rate of 7c per minute, which is far below the 20c per minute termination rate that Cell C and Telkom Mobile have to pay to terminate a call on the incumbents' networks.<sup>5</sup>

Entrants have challenges obtaining finance as there are major changes in technology which make returns uncertain. Regulatory uncertainty compounds this. Financiers are thus wary of providing funding to new rivals in this sector. The recent entrants in the fibre space appear to be linked to a formal or informal network of capital and trust that seem to circulate amongst a group of (serial) ICT entrepreneurs.

## Policy Recommendations

### *Competition issues*

- The on-net/off-net price discrimination case requires swift and thorough investigation by the authorities.
- Strong powers of competition enforcement by the regulator and competition authorities need to be ensured.

### *Facilitating broadband rollout*

- Government is in a position to be an anchor customer by aggregating its demand from the local municipal offices, clinics, police stations, and department offices. Treasury could set aside a fund that can be accessed on condition that government entities

coordinate in rural towns to extend fibre optic networks.

- Telkom's position as a lead agency is useful in so far as it relates to opening up infrastructure. Open access conditions should be imposed to give access to the fixed line infrastructure.
- Roll out projects must make use of existing infrastructure.
- All new roll out projects should be awarded on a competitive tender process at a district/municipal level.
- Broadband Infraco (BBI) has not been a significant positive competitive force in the industry, despite having the second best fixed network. Their funding should be reconsidered and perhaps the assets should be privatised on condition that open access is provided to railway lines and electricity lines.

### *National Spectrum Management Agency:*

- There have been a number of delays in the allocation of spectrum but these have been a result of lack of independence rather than lack of capacity at ICASA. ICASA should be left with the responsibility of managing spectrum allocation and provided with more independence.

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<sup>5</sup> My Broadband (2014) 'What Vodacom customers really pay for calls', 31 July, 2014. [Online] Available:

<http://mybroadband.co.za/news/cellular/107022-what-vodacom-customers-really-pay-for-calls.html>

- ICASA should be directly funded by the industry levies, as per the international best practice.
- The councilors should be appointed by the head of state and not the line minister.
- The number of councilors should be reduced as per international best practice.
- As far as possible spectrum should be assigned to operators that will use it efficiently. A national body should not be set up to hoard spectrum for the use of a publically owned network.
- LLU-access to ducts and poles for fixed line networks. The budget that has been allocated Telkom as the “broadband champion” (R1billion) should be earmarked to fund unbundling the local loop and this can be overseen by a team created within ICASA.
- Mobile site access and RAN sharing Infrastructure sharing should be closely regulated. The current regulations are insufficient. There should be a better dispute resolution process and better monitoring of infrastructure sharing.

#### *Lowering barriers to entry and expansion*

- Fixed wireless can use TV white spaces (TVWS) to provide more reliable services and become better competitors. ICASA should be given the funding to develop regulations for the use of TVWS on an ongoing basis.
- Consideration should be given to assigning TDD spectrum to new entrants and possibly some FDD spectrum. If FDD spectrum is allocated to new entrants then this could be used as leverage to get better MVNO roaming arrangements with the MNOs.
- Access to facilities- Rapid deployment guidelines must be finalized to facilitate rights of way applications for rollout. Access to municipal, provincial and national government infrastructure should be governed by one policy (ducts, poles, rights of way).
- There should be a regulatory framework for services based sharing (bitstream access, national roaming, MVNO access and wholesale data). At the moment, the ECA only makes reference to physical infrastructure and not services based sharing.
- Government policy should support spectrum sharing trading and pooling (including for TVWS) as it leads to the efficient use of spectrum and lowers barriers to entry.