



Telkom Submission to the Independent Communications Authority of South Africa

Public Inquiry into the State of Competition in the
Information and Communications Technology Sector
[Inquiry launch date: 20 March 2014]

2 July 2014

Submission by: Telkom SA SOC Limited



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1 EXECUTIVE SUMMARY

- 1.1** The central theme of the Authority's Inquiry relates to the state of competition in the information and communications sector. This inquiry is taken in the same epoch as the Authority's "Cost to Communicate" programme and the associated questionnaire. The themes in the Authority's current course of action are frequently represented as reinforcing i.e. more competition will lead to lower prices for consumers; whereas anti-competitive pricing at the wholesale layer could serve as a barrier to entry.
- 1.2** Telkom submits that merely pursuing these indicated goals as a single focus could lead to undesired consequences if moderating voices are ignored. The undesired consequences of such could be in the following:
- a. Job losses in the industry.
 - b. Reduced ability of operators to sustain burdensome universal service obligations.
 - c. Reduced investment in network upgrades, which will lead to increased congestion, deteriorating quality of service and limited roll-outs.
 - d. Less infrastructure based competition, as operators seek to amalgamate to extract increased corporate and network efficiencies.
 - e. Less operators competing at auctions for spectrum, and lower auction yields from such auctions.
- 1.3** Telkom further submits that these highlighted trends can be substantiated by international evidence. It is arguable that, there is sufficient evidence to support that such is already taking place in South Africa.
- 1.4** A well-considered policy and regulatory regime recognizes these trade-offs, which are predictable outcomes of rational behaviour on the part of any operator. Rather than merely focussing on price reductions over the short run, which could have dire consequences for the sustainability of the industry, it needs to be recognised that the National Development Plan appears to be focused on incentivising efficient investment and delivering social benefits.
- 1.5** There is a need to ensure sufficient large-scale investment (through both public and private funds) to allow for the extension of ICT infrastructure that supports the economy, society and the objectives of greater inclusivity and sustainability. This must be balanced against the need to ensure that specific strategic goals of access and service provision can be met, even in underserved areas and marginalised communities. Given that the State is capital constrained, with many urgent priorities, willing and capable private investors are needed. Creating collaborative partnerships with defined social responsibilities may be appropriate.
- 1.6** Many of the questions that the Authority is asking appear to be of a policy nature: the ICT Green paper process is already underway on this front. The role of the Authority in the interim would presumably be the administration of the EC Act in a manner that is administratively



judicious, and compliant with the law. Where discretion may exist, we would hope the Authority will consult with the policy maker i.e. the Department of Telecommunications and Postal services. On this front we have noticed encouraging progress, with the National Broadband Policy “SA Connect” having been gazetted in December 2013, and associated High Demand Spectrum Policy Directive expected in the 2014/15 year.

- 1.7** The current state of competition is satisfactory, but the regulatory measures need to be better aligned. Competition is effective in the services sector and retail tariff regulation has completed its due course. Competition in infrastructure services requires review and consideration of alternative models such as promoting consolidation whether through spectrum sharing, network sharing or mergers need to be accepted if the cost to communicate is to decline. Finally, any interventions must be mindful of eroding cross subsidies and the disproportionate universal service obligations that are currently imposed on Telkom.
- 1.8** In this submission we propose that a more light handed approach to regulation is needed:
- a. Reducing license obligations based on forbearance tests, executed under proper market reviews, would eliminate burdensome regulatory impositions on many of the operators, streamline their obligations and alleviate administrative headaches for the Authority.
 - b. International experience confirms that the excessive introduction of new operators over a particular threshold, in an already saturated market, is not economically sustainable and does not achieve the objectives of increased competition, namely lowering prices, improving services and stimulating innovation. In particular a study conducted in the UK concluded, based on a balance of variables, that four (4) infrastructure providers was optimum for the industry.
 - c. Regulation needs to focus on effective allocation of scarce resources (e.g. digital rights, spectrum, numbers and rights of way) as convergence drives increased competition for the same customer.
 - d. Current regulatory regimes do not compensate for the impact of disruptive technologies and their likely impact on retail prices for call related services. As the industry moves toward more subscription based billing there will be an effect on market dynamics – On net / Off-net pricing anomalies are a precursor to what will emerge.
 - e. Spectrum should rather be used as a means to promote effective and fair competition between existing operators. To optimise on its use and create a level playing field, the assignment of the correct blend (combination of high and low frequency spectrum) to existing operators will provide the natural competitive forces to push down prices, increase quality of service and expand customer choice.
 - f. Consolidation is inevitable as all operators focus on driving costs down – this may occur through mergers and acquisitions, network sharing or spectrum pooling. Rather than intervene on these matter, the Authority should work with the Competition who have the



power to approve, prohibit or conditionally approve a merger, depending on its likely effect on competition and the public interest.

- 1.9** In this submission, we have highlighted some of the competitive dynamics we have observed within the sector and which should serve as a useful starting point for the Inquiry. The aim of which should be to ensure that outdated regulations are repealed and that appropriate regulations are in place to ensure that the Authority delivers on its mandate to ensure affordable high quality ICT services for all South Africans.
- 1.10** Telkom looks forward to engaging with the Authority as the Inquiry progresses through its iterative stages.



2 INTRODUCTION

- 2.1** The Independent Communications Authority of South Africa (“**the Authority**”) has, through General Notice 229 of 2014 (“**the Notice**”) published in Government Gazette no 37456 of 20 March 2014, launched a high level inquiry into the state of competition (“**Inquiry**”) in the information and communications technology (“**ICT**”) sector.
- 2.2** The Authority’s stated aim of the Inquiry is to develop, through a number of iterative stages, a full appreciation of the implications of the changes and developments within the sector on the regulation of competition in the sector. It has called for initial written representations from interested parties in this regard.
- 2.3** The ICT sector has matured over the last five (5) years characterised by successively more liberalisation and heightened competition at all levels. This has exerted significant pressure on market participants who have refined their business models and scaled back costs. Telkom SA SOC Ltd. (“**Telkom**”) welcomes this review and agrees many of the issues outlined in the Notice are policy related and would therefore be better addressed through the National Integrated ICT Policy Review (“**Policy Review**”) process being conducted by the Departments of Communications (“**DoC**”) and Telecommunications and Postal Services (“**DTPS**”). Although, we focus much of our discussion on the regulations as they pertain to ICT in South Africa, we urge the Authority to review our submission in concert with our input to the Policy Review which can be issued to the Authority upon request.
- 2.4** The Notice sets out the scope of the Inquiry as follows:
- a. the current state of competition in the ICT Sector as a whole;
 - b. challenges to creating a level playing field across platforms;
 - c. the impact of disruptive technologies, net neutrality and innovation;
 - d. the role of fixed (fibre) and wireless (high demand spectrum) in enabling competition;
and
 - e. the tension between consolidation and plurality in the ICT sector.
- 2.5** Furthermore, several other issues were identified that for which the Authority requires clarity:
- a. the rising communication costs despite more competition;
 - b. the “unprecedented market consolidation”;
 - c. the “digital divide”;
 - d. the assignment and utilisation of high demand spectrum;
 - e. the impact of convergence on the way in which the ICT market is functioning and restructuring; and
 - f. the role of over the top services (“**OTT**”) and disruptive technologies on competition in the sector.



2.6 As we set out our views on the competition related challenges that the industry faces we also highlight the role of regulation in exacerbating or alleviating these challenges. The structure of the submission is in accordance with the five issues the Authority identified as in its Inquiry.

3 COMPETITION IN THE ICT SECTOR

3.1 OVERVIEW

The South African ICT Sector is highly diversified. Broadly speaking the sector is divided into various sub-sectors, or markets, including, but not limited to: Broadcasting, Postal, Telecommunications, and IT services, representing both private and public interests. Telecommunications operators typically hold both Electronic Communications Network Services (“**ECNS**”) and Electronic Communications Services (“**ECS**”) licenses, offering fixed line services, mobile services, or a combination thereof. The primary *integrated* market players are the two national fixed line operators, namely Telkom and Neotel; four infrastructure-based full service mobile operators namely Vodacom, MTN, Cell C, Telkom Mobile and the mobile virtual network operator (“**MVNO**”) known as Virgin Mobile. There are two other mobile/fixed-wireless operators, however their future remains unclear.

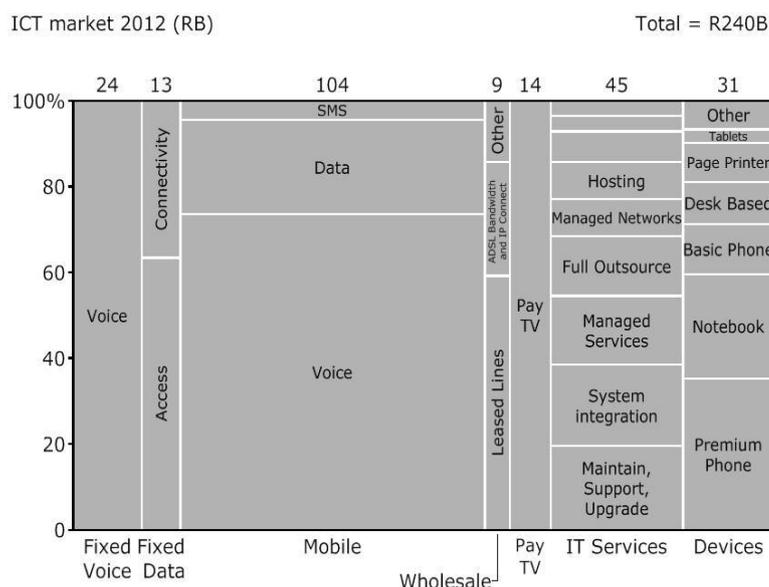
There are in excess of 700 ECNS/ECS licensees. Apart from the integrated operators that provide both ECNS and ECS, a significant number of internet service providers (“**ISPs**”) and value added network service providers (“**VANS**”) compete vigorously at the service layer in the telecommunications space. In all practicality, this is difficult to manage in regulatory terms and the Authority needs consider whether a “one size fits all” approach to licensing and regulation is relevant. As the Authority conducts this review, it must first ask whether the current licensing regime is delivering the outcomes that were originally envisaged, and whether onerous regulatory levers need to be exercised on emerging, smaller operators. Forbearance tests, executed under proper market reviews, would eliminate burdensome regulatory impositions on many of the operators, streamline their obligations and alleviate administrative headaches for the Authority. A more light handed approach to regulation would stimulate investment, innovation and growth that the sector so desperately needs today. And, the Authority would then have the capacity to direct its attention on the integrated players that have such a profound impact on the economy.

According to the DoC, the value of the South African ICT Sector in 2011 was estimated at R187 billion and is expected to grow to R250 billion by 2020. What the Authority needs to consider is whether this growth is sufficient given that a vast majority of South Africans still cannot access enabling technologies because of the country’s low geographic and income densities. The DoC estimates that South Africa spends close to 10% of GDP on ICT goods



and services¹, most of which are imported. This exacerbates operators' abilities to reduce costs when they must contend with exchange rate fluctuations. A Statistics SA Report on SA Posts & Telecommunications estimates the sector's revenue at R281 billion in 2010. Telkom's internal analysis has estimated the ICT sector in South Africa to generate approximately R240 billion in revenue, with telecommunications services accounting for the majority of this (approximately 60%). The estimated percentage contribution of each of the components of the ICT sector is summarised in the figure below.

Figure 1: Estimated Contribution of ICT Sector Components



Source: Telkom internal estimates

Initially Telkom was the only provider of ECNS/ECS; however the competitive dynamics of the market have evolved to such an extent that other licensees have managed to gain significant market share in all components of the ICT sector, including telecommunications. Despite the change in market dynamics and the high contribution of mobile voice and data to the ICT revenue, a large proportion of the Universal Service and Access Obligations (“USAOs”) are still imposed on Telkom based on its legacy monopoly.

Compliance with these disproportionate obligations has placed Telkom at a distinct cost disadvantage compared to other providers of telecommunications services. The result of which is that it is unable to compete effectively with ICT service providers that either do not have USAOs, or have chosen not to comply with such USAOs. We propose that urgency with which the Authority reviews the USAOs is paramount to create a level playing field in this highly dynamic industry.

¹ <http://www.doc.gov.za/documents-publications/category/23-executive-summary-ict-policy-review-feb-2014.html>

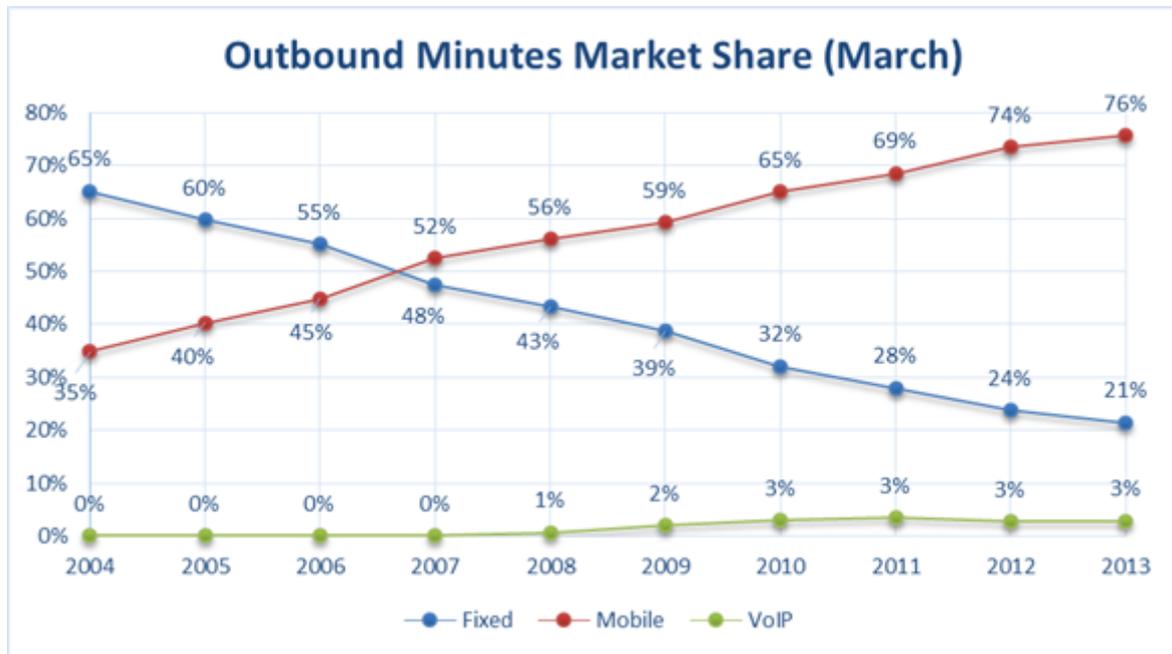


Other challenges that have affected Telkom’s ability to compete effectively are:

- a. Other mobile operators having the advantage of 900MHz spectrum; whereas Telkom Mobile is limited to operating only in the upper bands; and
- b. A regime whereby asymmetrical regulation has been applied between fixed and mobile call termination rates.

In order to level the playing fields, the Authority is advised to take cognisance of fixed-mobile substitution (“FMS”) and fixed-mobile convergence (“FMC”) in the provision of voice and data services. Figure 2, below, shows how the preferred technology for voice calls has changed over the past ten (10) years.

Figure 2: Trends in the South African Voice Services Market



Source: Africa Analysis, 2014

In 2004, 65% of outbound voice calls were carried on fixed technology. By 2013 the percentage of outbound voice traffic from a fixed location decreased to 21%. The opposite trend is apparent for mobile calls whereby 35% of outbound calls were mobile calls in 2004. By 2013 this percentage had increased to 76%. Although the percentage of Voice-over-Internet-Protocol (“VoIP”) calls to total outbound calls has remained small, it has trebled between 2008 and 2013.

The decline in fixed voice² is not unique to South Africa. In 2012 the Body of European Regulators (“BEREC”) produced a report wherein they stated that:

“At the EU 27 level, fixed voice telephony is declining both in terms of revenues and volumes. Traditional fixed voice telephony services are increasingly being replaced by Voice over Broadband services and also by mobile solutions”.

² BEREC Report on Impact of Fixed-Mobile Substitution in Market Definition, 24 May 2012



The table below outlines the percentage of mobile voice traffic for 31 Organisation for Economic Co-operation and Development (“OECD”) countries between 2005 and 2009. Notably, the proportion of mobile traffic was bigger than that of fixed for most OECD countries in 2009; the exceptions being Germany and New Zealand.

Table 1: Mobile Voice Traffic as a Percentage of Total Voice Traffic (OECD Countries)

Country	2005	2006	2007	2008	2009
Australia					
Austria		67.9%	75.6%	80.5%	83.5%
Belgium	42.1%	47.6%	49.5%	52.7%	55.1%
Canada					
Chile	29%	34.5%	44.8%	54.3%	60.2%
Czech Republic	48.1%	61.7%	67%	76.9%	80.2%
Denmark	32.8%	40.3%	47.7%	54.6%	60.6%
Estonia	56.6%	65.3%	70.9%	72.8%	74.6%
Finland	59.2%	70%	76.8%	82.7%	86.7%
France	48.5%	52.3%	53.9%	53.6%	53.5%
Germany					32.1%
Greece	38.1%	44.2%	49.5%	54.7%	52.5%
Hungary			74.3%	78.2%	74.5%
Iceland	41.3%	45.1%	51.3%	56.9%	58.7%
Ireland	48.9%	55.1%	62.4%	68.8%	69%
Israel					58.4%
Italy				54%	56.8%
Japan	47.3%	51.4%	55.6%	61.2%	65.4%
Korea	59.8%	62.7%	66.7%	70.9%	75.8%
Luxembourg				53%	57.7%
Mexico	22.8%	27.2%	31.5%	46.5%	52.6%
Netherlands			50.3%	53.1%	55.3%
New Zealand				26.4%	30.9%
Norway	34.2%	44.8%	54.4%	62.8%	69%
Poland	38.6%	54.1%	64.4%	71.5%	76.9%
Portugal		66.2%	68.7%	71.5%	74%
Slovak Republic	42.7%	46.1%	50%	54.8%	60.1%
Slovenia				69.9%	75.4%
Spain	48.5%	53.6%	57%	57.8%	56.9%
Sweden	22.2%	30.7%	39.4%	47%	53.6%
Switzerland	30.3%	34.7%	39.5%	45.6%	49.9%
Turkey				75.5%	84.4%
United Kingdom	24.5%	32.5%	41.5%	47.1%	50.4%
United States					

Source: OECD, 2012³

In Australia, the figures for which are not included in Table 1, the Australian Communications and Media Authority (“ACMA”) estimated that the number of mobile minutes increased by 48% between 2005 and 2007; whereas the number of fixed minutes decreased by 10% over the same period⁴

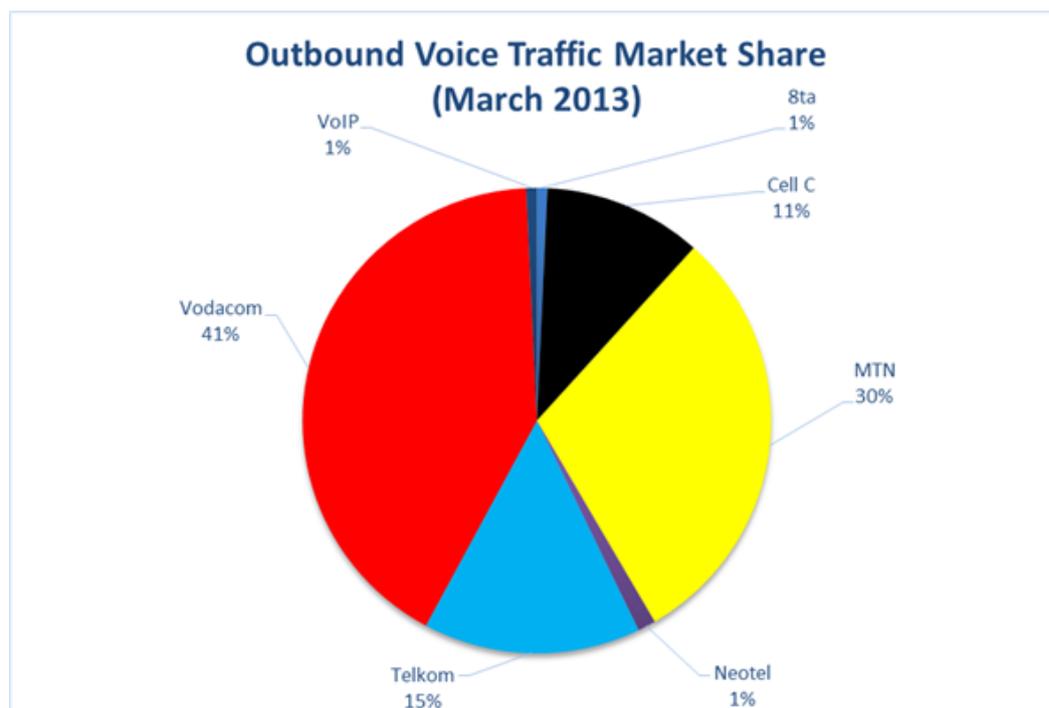
³ OECD. Fixed and Mobile Networks: Substitution, Complementarity and Convergence, DSTI/ICCP/CISP(2011)11/FINAL, 08 October 2012

⁴ Australian Communications and Media Authority Report on Fixed Mobile Convergence and Fixed Mobile Substitution in Australia, July 2008



It is also worth noting that, in addition to the changes in the dominant technology being used by subscribers for making voice calls, Telkom's position in the market has diminished from that of being the dominant carrier of outbound voice calls in 2004 to a share of approximately 15% by 2013. The graph below provides an overview of the share of outbound calls by operator in 2013:

Figure 3: Share of Outbound Calls per Operator



Source: Africa Analysis, 2014

The manner in which subscribers are accessing broadband has shown a similar trend to that of voice, both in South Africa and internationally. In its report⁵ BEREC reported that although there are differences in trends in fixed-mobile substitution across Europe

"...at the very least, it can be seen that the penetration and development of mobile broadband is growing faster than the penetration and development of fixed broadband".

In addition, the Digital Agenda Scoreboard 2011 report showed that growth in fixed broadband access in 2010 was the lowest since 2003. BEREC attributes differences in fixed-mobile substitution in broadband access to different levels of mobile broadband adoption in different European countries and the different level of mobile data-only households⁶.

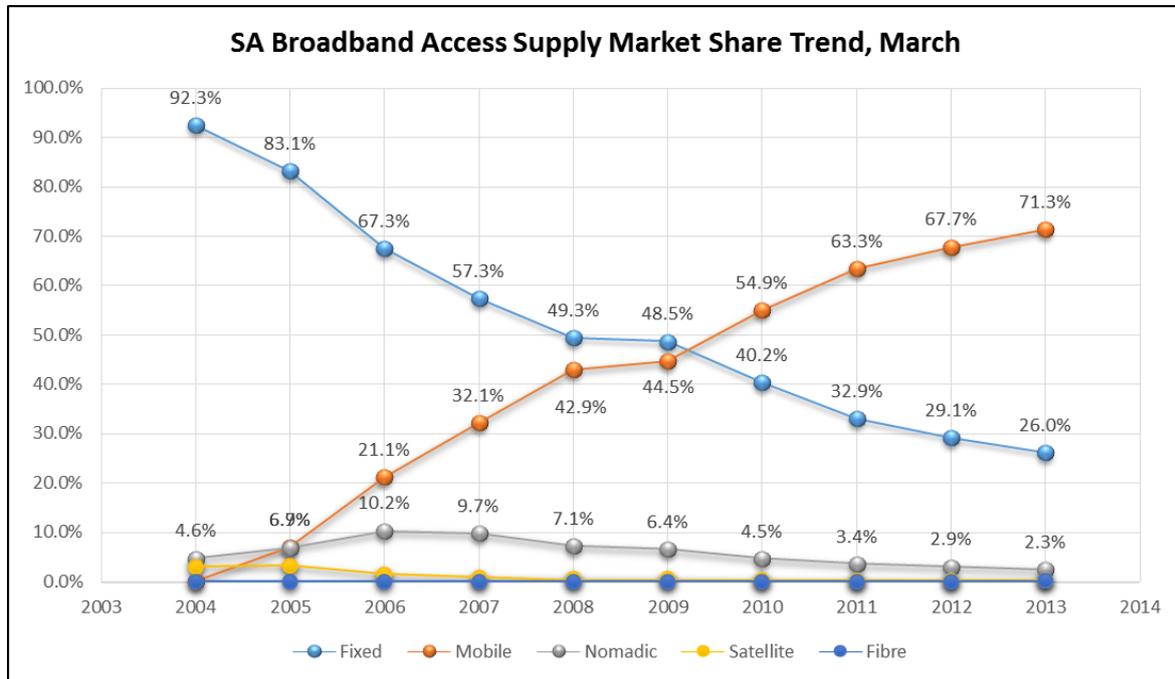
⁵ Ibid p19.

⁶ Ibid



The fixed- mobile substitution trend for data access in South Africa is outlined in Figure 4 following:

Figure 4: Fixed- Mobile Substitution Trend for Data Access in South Africa



Source: Africa Analysis, 2014

Mobile access is fast becoming the preferred broadband access medium in South Africa; having accounted for over 70% of broadband access in 2013. Although fixed access, which is defined as DSL circuits over copper (excluding fibre access), accounted for 92.3% of broadband access in 2004, the percentage contribution dropped to 26% in 2013.

There appears to be negligible uptake of fibre to a dwelling or business to date and it is expected that fibre will become the preferred fixed access medium as the demand for higher speed broadband increases. ECNS licensees are currently deploying fibre access, including Telkom, Neotel, Vodacom, MTN, Dark Fibre Africa and along with several local municipalities. Inevitably, the level of competition within the fixed broadband access space will increase. Access providers will differentiate on the basis of their content portfolios and their quality of service. Regulatory measures should not be seen to impede this advancement, for in doing so, consumers will suffer in the end. Policy measures should promote investment and growth rather than prolong uncertainty in the market place.

3.2 THE ROLE OF REGULATION IN PROMOTING COMPETITION IN ICT

Telecommunications services in South Africa are regulated by the Authority which currently reports to the DoC. Telecommunications policy is, however, the responsibility of the newly formed DTPS. The Authority derives its legislative power from the Independent Communications Authority of South Africa Act 13 of 2000 (as amended) (“EC Act”) and it regulates telecommunications in accordance with the Electronic Communications Act 36 of



2005 (as amended) and regulations promulgated in accordance with the aforementioned pieces of legislation.

█ In this consultation, the Authority has observed that there are 416 operational ECNS/ECS licences; although despite such, competition may still be but the criteria for determining this are not transparent. Similarly, competition at the infrastructure layer may not lead to the desired outcome of a reduction of communications costs and an improvement in consumer welfare. It is against this background that Telkom strongly suggests that the Authority undertake an economic study to determine the optimal number of mobile and fixed line infrastructure providers to prevent unnecessary duplication and financially unsustainable networks.

█ The industry has become more liberalised with the enactment of the EC Act and this is welcomed. Infrastructure competition, undoubtedly, has led to the advancement of the industry. There are continuously changing market dynamics, emphasising the importance of ensuring that regulations are future proof, technology neutral, and enhance competition. Where Regulations have ceased to be relevant, these should be repealed. If there are market distortions Telkom calls for the new regulatory framework to address changes in the marketplace and the shifting positions within the ICT value chain due to convergence. Roll-out of high-speed Next Generation broadband infrastructures could well be accelerated through “investment friendly” regulations.

█ Market failures should be addressed, rather than being perpetuated. Early detection of market failures are a core capacity within the regulatory agency. This will enable timely and effective intervention and operators will welcome such as it will reduce uncertainty. In identifying market failures the Authority needs to specify the criteria that must be met to conclude that such market failures exist. In the European Union (“EU”) for example, the State Aid rules set out a set of criteria allowing for government intervention in a market. Although the applicability of the rules depend on the particular sector market failure being addressed, they tend to follow general principles as provided below:

“Common Assessment Principles

To assess whether a notified aid measure can be considered compatible with the internal market, the Commission generally analyses whether the design of the aid measure ensures that the positive impact of the aid towards an objective of common interest exceeds its potential negative effects on trade and competition.

- i. Contribution to a well-defined objective of common interest;*
- ii. Need for State intervention: the State aid measure is targeted towards a situation where aid can bring about a material improvement that the market cannot deliver itself, for example by remedying a well-defined market failure;*
- iii. Appropriateness of the aid measure: the proposed aid measure is an appropriate policy instrument to address the objective of common interest;*



- iv. *Incentive effect: the aid changes the behaviour of the undertaking(s) concerned in such a way that it engages in additional activity which it would not carry out without the aid or it would carry out in a restricted or different manner;*
- v. *Proportionality of the aid (aid to the minimum): the aid amount is limited to the minimum needed to incentivise the additional investment or activity in the area concerned;*
- vi. *Avoidance of major undue negative effects on competition and trade between Member States: the negative effects of aid are sufficiently limited, so that the overall balance of the measure is positive;*
- vii. *Transparency of aid: Member States, the Commission, economic operators, and the public, have easy access to all relevant acts and to pertinent information about the aid awarded thereunder.”⁷*

Conclusions on markets and market failures can, however, only be arrived at by relying on evidence submitted by the market participants to a central authority like the Authority through the process of a market review. This will only provide a structured and precise starting point for identifying the relevant markets and tailoring interventions based on an identified set of criteria. Industry consultation is essential to reduce information asymmetry and create beneficial regulatory interventions.

Convergence will influence identification of markets, since various types of convergence continue to send ripples through the ICT sector. It must be acknowledged that convergence will continue to result in increased competition for the same customer. This has the consequence of increasing competition for any scarce resources that are required to serve such a customer (e.g. digital rights, spectrum, numbers and rights of way) which will increase the economic value of those rights.

Regulators must consider the overlaps between industries and the boundaries between operators, industries and countries of origin that are rapidly falling away. Previously protected industries and markets will become exposed to competitive forces; thereby resulting in reduced profits, reduced operations and possible job losses. Cross subsidies to uneconomic customers and areas will erode and undermine operators with onerous obligations.

The International Telecommunications Union’s (“ITU”) statistics, as published in “The World in 2014: Facts and Figures” show that mobile broadband growth in developing countries is twice that of developed countries. The Authority needs to acknowledge and adapt to this growth in the market by adapting its regulation strategy and regime in accordance with expected market trends and dynamics; the decline in fixed voice traffic due to the advent of mobile technology is a clear illustration.

Any study of the nature proposed in this Inquiry would require that the Authority seeks the cooperation of National Government Departments and other regulatory authorities,

⁷ Communication from the Commission: Guidelines on State aid for environmental protection and energy 2014-2020, Brussels 2014, page 15.



including the Competition Commission, the DTPS, the Department of Trade and Industry and the National Treasury. Market analyses undertaken efficiently, leveraging on existing expertise and resources, and across government departments will provide cohesive, consistent policies that do not undermine each other. Competition (which seeks to include the provisions to providing all South Africans of equal opportunities to participate in the economy, achieving effectiveness and efficiency in markets, increasing consumer choice and restraining particular trade practices that undermine a competitive economy etc.) Policy must go hand in hand with ICT policy.

3.3 CORE ISSUES TO BE ADDRESSED

█ In essence we conclude that the current state of competition is satisfactory, but the regulatory measures need to be better aligned. Competition is effective in the services sector and retail tariff regulation has completed its due course. Competition in infrastructure services requires review and consideration of alternative models such as promoting consolidation whether through spectrum sharing, network sharing or mergers need to be accepted if the cost to communicate is to decline. Finally, any interventions must be mindful of eroding cross subsidies and the disproportionate universal service obligations that are currently imposed on Telkom.

- a. Market reviews are even more critical now to ensure that the correct levers are employed as the industry starts converge and introduce innovative services;
- b. Identification of the “right” number of participants must be a definitive outcome of any market review to ensure that the benefits of economies of scale and scope at the infrastructure layer are achieved while still ensuring a highly competitive service layer that reduces communication costs without compromising service and innovation. Limiting the number of network providers is likely to assist the development of globally competitive networks and in so doing promote sustainable competition and growth of the Sector.
- c. Repeal and amendment of outdated regulations is critical to reduce market distortions better level the playing field.
- d. New regulations must be future proof, technology neutral and enhance competition.
- e. Review of the USOs as part of its licencing conditions is urged to encourage investment in networks. Limiting the number of network providers is likely to assist the development of globally competitive networks and in so doing promote sustainable competition and growth of the Sector.

4 CREATING A LEVEL PLAYING FIELD ACROSS PLATFORMS

4.1 THE IMPACT OF DIGITISATION ON TRADITIONAL COMPETITION MARKETS

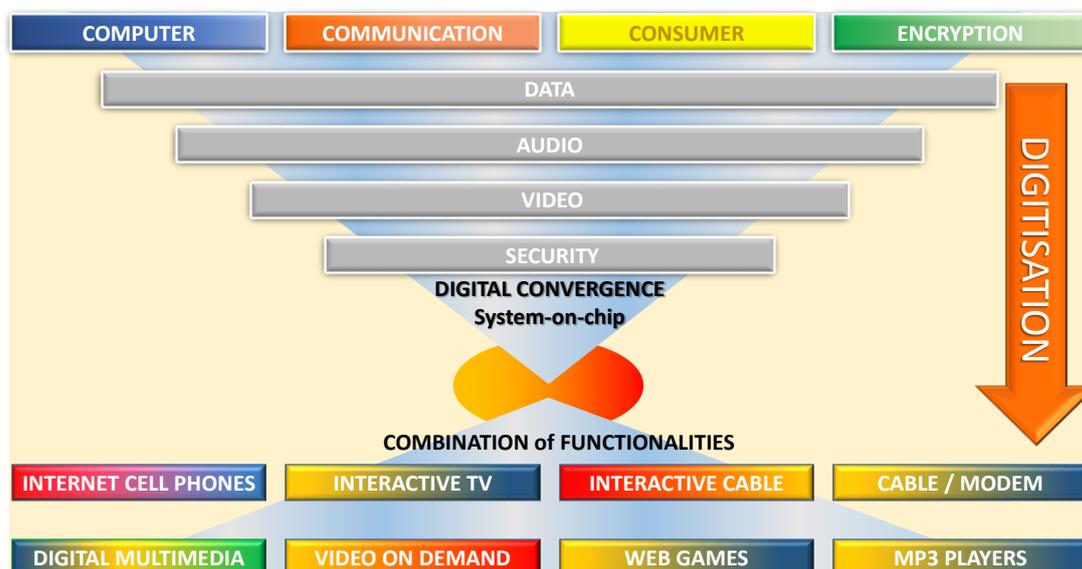
█ At that the core of the ICT industry today is the fact that all information (such as text, sound, light, colour, temperature, books, etc.) can be converted to a binary numbering scheme.



This is due to advancements in technology which can be stored as binary digits (in the form of bits and bytes) on binary storage devices.

With a common binary format being used in all terminal/customer devices, the challenge is the transportation of this information between points. Conceivably networks are nothing more than combinations of “pipes” capable of conveying of information at very high speeds from one point to another. Next Generation Networks (“NGNs”), which may also be referred to as “bit pipes” networks comprise of copper, fibre and/or radio frequencies links or a combination thereof. As a primary function these networks (or platforms) enable the delayed or real-time conveyance of text, sound, pictures and video between two or more points. Essentially, any information can go anywhere and anyone or anything can interact with anyone or anything as indicated in the figure below.

Figure 5: Everything is Being Digitized⁸



4.2 UNI-DIRECTIONAL VERSUS BI-DIRECTIONAL COMMUNICATIONS

Not only is there convergence between fixed and mobile technologies in the provision of telecommunications services, but there convergence in the methods by which telecommunications and broadcasting services.

Previously two types of conceptual networks were conceived for very specific purposes:

- a. The uni-directional broadcasting network was designed to distribute broadcasting content from a single point to multiple points (citizens); and
- b. A bi-directional communication network enabled interactive voice communication between two citizens with each having terminal equipment connected to the common network.

⁸ Source: http://www.texascollaborative.org/SmithModule02/sec1_con.php



Today all networks are technically capable of facilitating bi-directional communication (both for sound and pictures/video). The observable trend throughout the world is that the digitisation era has resulted in convergence at different levels: from broadcasting and telecommunications services at the network level to customer terminals at the subscriber level.

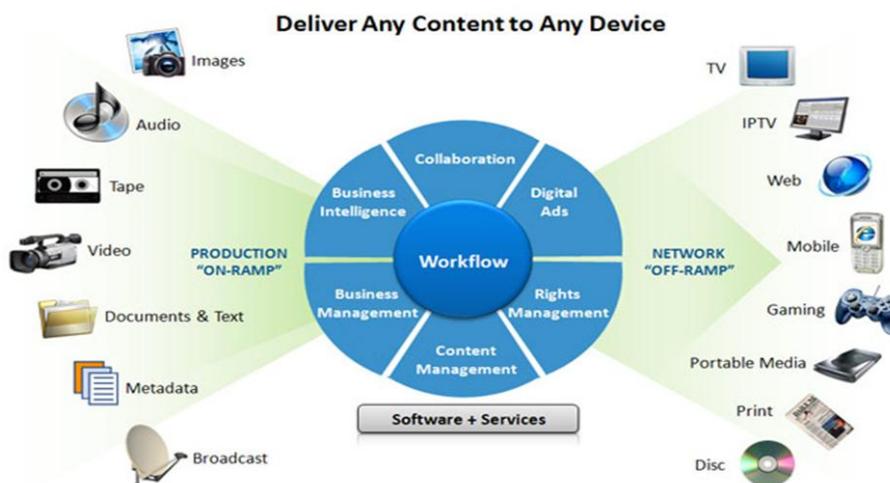
Competitive tension is emerging between signal distribution companies and telecommunication providers; whereas on the content layer there is tension between Internet content providers and broadcasters.

Competition is also occurring across international boundaries where content providers in one country are providing content services in another country without the required broadcasting licenses, using the local telecommunication networks as platforms.

Traditionally content providers made use of national broadcasters. Currently every communication network end-user has the potential to be a content generator. Common content distribution platforms facilitate this content distribution to the mass market via bit/byte distribution networks.

The Figure below shows how an underlying network needs to adjust to accommodate the exponential rise in the conveyance of digitized information over the so-called NGN.

Figure 6: The Impact of Digitization on a Network⁹

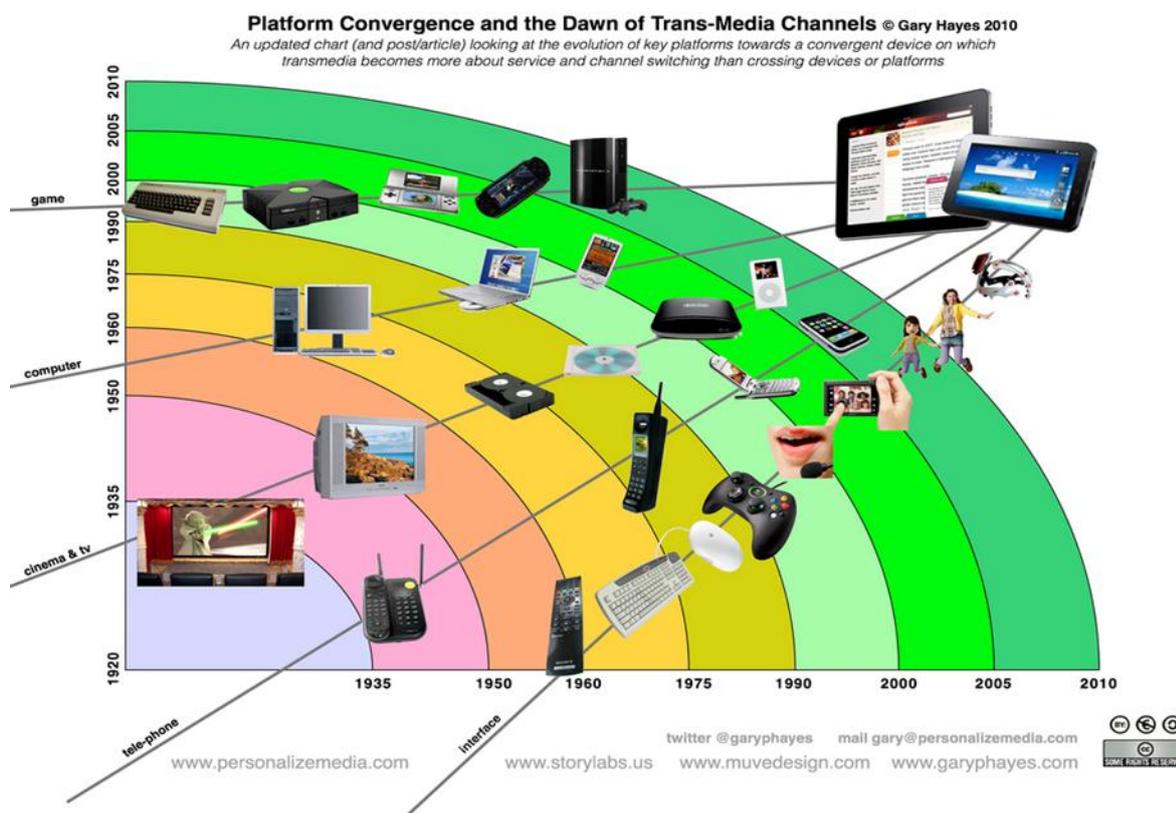


⁹ Source: <http://www.cmswire.com/cms/web-engagement/enterprise-content-management-for-converging-media-channels-007804.php>



4.3 THE “PLAY PENS”

Figure 7: Digitization and Technology - Distorting Traditionally Defined Market Boundaries¹⁰



The Figure above illustrates the trajectory of digitization technology. Eventually, a consumer device with a technical interface, provided by a modern NGN, will be capable of receiving digitized content either directly from a user, or alternatively from a platform serving content, either freely or as a commercial service. Multi-national companies, such as Apple, Samsung, Nokia etc., who enjoy large economies of scale and other competitive advantages in manufacturing new generation customer premises equipment will compete directly with our local operators who can import such low cost devices – this dis-incentivises our local South African manufactures.

South Africa’s industrial policy needs to identify the end-user device markets in which we have the technical expertise and manufacturing capabilities to compete globally and distinguish those from markets where will remain a net importer. The provision of Set Top Boxes (“STBs”) is one market in which South Africa has a comparative advantage: EUC has been manufacturing the MNet and Multichoice STBs for many years. South Africa is also known to export STBs to other markets, including the UK. Telkom is cognisant of the

¹⁰ Source: <http://mediachs.edublogs.org/the-importance-of-cross-media-convergence-and-synergy-in-production-distribution-and-marketing/>



Ministerial Directive issued December 2013 on the subsidization of STB's, and supports the approach adopted there.

5 DISRUPTIVE TECHNOLOGIES, NET NEUTRALITY AND INNOVATION

5.1 THE IMPACT OF DISRUPTIVE TECHNOLOGIES

████████ Innovative technologies have already made their presence felt in the South African market. This is particularly observable in the advancement in the processing power of mobile handsets, the associated software applications that can run on them and their increasing appetite for high speed data and high speed mobile data network connectivity that can be established with them.

████████ One example of an innovative disruptive technology that has gained prevalence with the progressive rollout of VoIP. Although, as indicated in Section 3, the share of voice calls carried over IP is low at 3%, it is expected that as technology evolves VoIP is likely to be the primary method of conveying voice across networks.

████████ Increasingly service providers are now offering VoIP as a main service to their customers over high speed data connections. As VoIP users bypass the traditional interconnected voice carrier networks to reduce calling fees, they use over the top (“OTT”) services. This has resulted in increased competition at the service layer of networks whereby VoIP providers (mostly foreign companies) “piggy back” on local infrastructure of licensed operators without making a contribution to the South African economy. This does not produce long term sustainable ICT sector.

████████ Similarly, other disruptive technologies such as WhatsApp, iMessage and BBM have replaced short message services (“sms”) over the past few years. As the adoption rate of these solutions increases, less traffic fills the traditional voice network, diminishing Average Revenues per User (“ARPU”) – local, long-distance and roaming charges are effectively being reduced towards zero and subscription based services will emerge, offering packaged bundled products. Current regulatory regimes do not compensate for this and the possible effect they will have on market dynamics – On net / Off-net pricing anomalies are a precursor to what will emerge. More importantly, a reduction in revenues will only lead to operators being less incentivised to invest in new network infrastructure (such as fibre access networks) as the outlook for a reasonable return on investment becomes less attractive.

████████ A reduction in investment incentives certainly contradicts the spirit of the National Development Plan and the National Broadband Policy which seek to stimulate private investment in the ICT sector.

████████ Regulatory authorities have few options to address the unequal advantages that non-licensed VoIP operators enjoy. Some jurisdictions have considered imposing a surcharge on interconnection fees which are used to fund national voice networks. Such surcharges



on international calls terminating in a country, contravene the General Agreement on Free Trade (“**GATS-4**”) to which South Africa is a signatory.

5.2 THE IMPACT OF NET-NEUTRALITY

Net neutrality is a catch-all phrase which incorporates a number of dogmas. These include that:

- a. there should be no Quality of Service (“**QoS**”) differentiation on the Internet, claiming that “all bits are created equal” and that this will lead to a “Tiered Internet”;
- b. there should be no throttling of applications on the Internet (also known as shaping);
- c. there should be no blocking of lawful applications e.g. Port 80, VoIP;
- d. there should be no content filtering; and
- e. the Internet should be open to all Web Standards.

The concepts of Net Neutrality, Open Internet, Open Communication and Common Carrier (in the legal sense of the term) are often blurred. Many articles have attempted to define Net Neutrality and their pros and cons. Most of the debate, however, seems focused on items (1) through (3) in that order of precedence.

Telkom concurs with those who advocate that the imposition of Net Neutrality, if permitted by law, would result in consumers having less choice and lower quality of service. For example:

- a. Emergency applications will receive no preference over conventional traffic. A costly, fully separate network will need to be built to handle disaster situations.
- b. Socially beneficial content e.g. education, will queue behind commercial applications e.g. pornography - which themselves may not be subject to filtering.

Advocates of Net Neutrality paint a perverse view of the world where telecoms companies cosy-up to fee paying content providers and in so doing neglect consumers. Yet, the business model of an ISP is based on the premise that consumers will access the content they want at an acceptable quality. Consumers are more likely to welcome any efforts from telecommunications companies to have content providers pay for the bandwidth upgrades to their networks (as per the United States), in South Africa the entire Internet experience is funded by subscription fees from consumers.

ISPs aggregate internet bandwidth (of their consumers) to negotiate lower transmission prices and then seek to prevent abuse by instituting “Fair Usage” policies of shaping and capping. Without these policies it would be technically impossible to enforce fair usage and the estimated 2% of bandwidth users, namely “Bandwidth Hogs” (who are effectively cross subsidised by others consumers). These policies keep cost per user lower. It is necessary to create a “Tiered Internet” based on the argument that consumers themselves are tiered in their appetite for bandwidth.

On the matter of network prioritization, telecommunication companies across the world, including South Africa, are employing Quality of Service (“**QoS**”) Standards created by the



Internet Engineering Task Force (“**IEFT**”) standards organisation since. Companies have been selling IP-QoS virtual private networks (“**VPNs**”) in the corporate market since the 1990’s. This has allowed companies to accrue the savings of VoIP through “toll-bypass” i.e. placing their Enterprise VoIP applications into VPNs. Without QoS, VoIP can only work reliably (due to jitter concerns) if network utilizations remain below 5%. Doing away with QoS would mean that companies would no longer be able to use the other 95% for e-mail and other corporate applications, and would have to pay for the spare capacity on the network.

Consequently proponents of Net Neutrality are misguided, and the current practices of telecommunications operators prioritising and throttling traffic are in the consumers’ best interests – if one product does not meet the requirements of a consumer, there are always others which are better tailored to meet their needs.

Lastly, there are no provisions in the EC Act that would support the introduction of a “Net Neutrality Framework”. The provisions in the EC Act, which speak to non-discrimination, are sufficient to ensure consumer protection without the unintended consequences that would result from imposing net neutrality.

5.3 TELEVISION WHITE SPACES

Television White Space (“**TVWS**”) technology utilises vacant spectrum in traditional analogue broadcasting frequency bands (470-862 MHz) for the provision of non-broadcasting type services, such as wireless communications. There are two types of white space technology:

- a. Geo-location white spaces, where senders/ receivers are stationary and register with a geo-location database – as per the trials in the US, UK and South Africa; and
- b. Cognitive radio¹¹ white spaces, where the location of the senders/ receivers is both unknown and may be nomadic.

By definition White Spaces use spectrum on a “secondary usage” basis, and users of such may neither interfere with nor claim protection from the primary user of that spectrum. Proponents of White Spaces indicate that the technology “works” because it has been shown not to interfere with the primary use. However, only geo-location trials in the analogue TV bands (White Spaces) have been able to demonstrate this. Many point-to-point and point-to-multi point bands have shown the same capability (sharing of bands between wireless technologies) over the past 60 years. Consequently, TVWS using geo-location are neither novel nor revolutionary.

TVWS is actually less about a new or particular technology, and more about a method of user obtaining access to spectrum on a licence exempt basis e.g. “Wi-Fi on steroids” as

¹¹ A **cognitive radio** is an intelligent radio that can be programmed and configured dynamically. Its transceiver is designed to use the best wireless channels in its vicinity. Such a radio automatically detects available channels in wireless spectrum, then accordingly changes its transmission or reception parameters to allow more concurrent wireless communications in a given spectrum band at one location



some have labelled it. However unlike Wi-Fi whose users are nomadic, unknown and short range; TV White spaces (using geo-location) operates similar to traditional wireless technologies i.e. the location of users must be registered and users managed so as to prevent interference. Hence unlike Wi-Fi, there is a need for coordinated access to TVWS, probably through a central authority. TVWS may be an opportunistic method for users to obtain access to good spectrum, with all the benefits of a licenced user, without incurring the high spectrum costs or obligations that come with an ITA.

There is continued academic interest in cognitive radio. In theory cognitive radio will make it almost impossible to police issues related to spectrum interference and users will be able to hop around the frequency bands looking for free channels, and identifying sources of interference will be virtually impossible.

Geo-location TVWS trials are being conducted in South Africa have identified critical shortcomings that must be addressed before commercial uses of TVWS systems:

- a. Trials have been carried on in Analogue White Spaces only, whereas Analogue to Digital Migration is underway; in particular the use of TVWS in SFNs (Single Frequency Networks) should be ascertained.
- b. The impact of TVWS on the use of other secondary uses, specifically SAB/SAP (Services ancillary to broadcasting and program making) should be determined;
- c. Although it is common cause that TVWS will be operated on a NINP (non-interference and non-protection basis) possible claims to access rights in the long run should be addressed (operating commercial services for many years may establish perceived i.e. access rights to such spectrum.
- d. A basic principle of TVWS is to self-manage its operation through access to a database of primary users in the area, which functionality must still be proven.

Although there have been a few technical trials on TVWS, many technical and regulatory matters still need to be addressed before it can be taken to market.

The effort to close the digital divide through National Broadband roll out, where it is envisaged users will ultimately have speeds of up to 100Mbps per user, is unlikely to be delivered via TVWS.

Having said all this, where appropriate, and supported by a fully-functioning spectrum regulator (i.e. with up to date spectrum databases and the ability to manage interference issues), Telkom supports the concept of spectrum sharing between primary and secondary users. Furthermore Telkom encourages the trialling of truly novel radio applications.

Lastly, were TVWS to be licenced in South Africa, the regulatory playing field would need to be levelled. Hence if operators using TVWS do not pay spectrum licence fees (licence exempt operation) or have universal service obligations attached, the regulatory obligation on licensed wireless operators should be reduced, as competition reduces the profitability of operators from which they are expected to cross subsidize any obligations.



5.4 WIRELESS (HIGH DEMAND SPECTRUM)

█ Spectrum allocation plays a vital role in stimulating facilities based competition in the mobile communications sector as it is a pre-requisite for market entry and the subsequent provisioning of services. However, international experience confirms that the excessive introduction of new operators over a particular threshold, in an already saturated market, is not economically sustainable and does not achieve the objectives of increased competition, namely lowering prices, improving services and stimulating innovation. In particular a study conducted in the UK concluded, based on a balance of variables, that four (4) mobile infrastructure providers was optimum for the industry.

█ In general, new operators that obtain spectrum assignments tend to roll-out networks in the profitable densely populated areas, thereby stimulating competition solely in these areas, often through aggressive pricing strategies. This leads to a reduction in the revenue of established operators, which significantly hampers their ability to cross subsidize the provisioning of services in less profitable low population density areas. Moreover, the reduction in revenue negatively impacts an operator's ability to perform costly network maintenance and technological upgrades, thus potentially resulting in poor QoS. Utilizing spectrum as a mechanism to stimulate competition via the introduction of new players, in an already saturated market, may further increase the digital divide and degrade network quality.

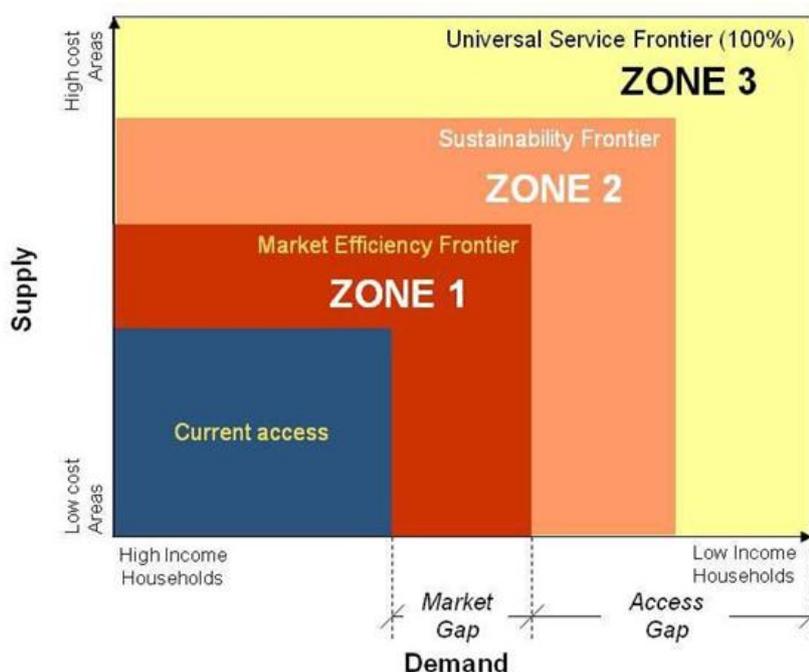
█ In light of the above, spectrum should rather be used as a means to promote effective and fair competition between existing operators. For example each operator, should have sufficient bandwidth in both high frequency and low frequency bands, in order to provide services with sufficient levels of capacity and coverage, respectively. In this regard, Telkom is currently the only mobile operator without access to spectrum below 1 GHz. This impedes our ability to compete effectively in the mobile market. If the abovementioned concerns are remedied and existing operators have the correct blend (combination of high and low frequency spectrum), natural competitive forces will be sufficient to push down prices, increase quality of service and expand customer choice.

5.5 COMPETITION AND UNIVERSAL SERVICE IN A COHERENT FRAMEWORK

█ We propose that the GAP model is an effective tool for facilitating discussions aimed at identifying shortfalls in service delivery. We recommend that a geographically based GAP model be used to categorise areas into zones or markets as indicated in the figure below:



Figure 8: The GAP Model



Using the GAP model, the Authority should consider the following zones:

- Zone 1** – areas where infrastructure competition is promoted as operators can sustain such;
- Zone 2** – areas where infrastructure competition is not supported by economics. Operators could either pool resources to build a joint network, or receive a smart subsidy from Government. The revenues associated with the network should sustain the operating costs; and
- Zone 3** – without ongoing government support there is no business case for operators to build out networks in these areas, no matter how much infrastructure and network sharing may be contemplated

Zones 2 and 3 will inform both the Authority's list of Under Served Areas and a set of reasonable obligations that may be attached to new spectrum licences.

Essentially, the Inquiry appears to seek to address the question of ensuring that markets function efficiently. We place this discussion within Zone 1.

Even if the Authority were to successfully introduce more competition into the market, such competitors are likely to compete only within the Zone1 and it is improbable that the market would expand beyond the Market Efficiency Frontier. This poses some challenges around discussions on universal service in South Africa, in that we that we currently do have any objective measurement of where we are in the GAP model and where the market frontier is.



5.6 HIGH DEMAND SPECTRUM AND THE DIGITAL DIVIDE

The phrase “Digital Divide” is used frequently, yet Telkom is unaware of any universal definition of what is meant by the “Digital Divide”. Consequently it is understandable that South Africa has not been able to state in objective terms what the problems to be solved are, and where the bulk of the problem lies.

To simplify matters Telkom considers the uptake of ICT’s to be a function of four factors:

- a. Availability of networks;
- b. Affordability of service;
- c. Digital Literacy; and
- d. Access to relevant content and applications.

Much of the discussion on the Digital Divide in South Africa has focused on supply side interventions– however with 3G population coverage projected to exceed 90% by 2018 it is therefore difficult to assume that a lack of coverage is the major obstacle to uptake.

There are areas in which it is too impractical or infeasible to provide telecommunications services via mobile technologies. The Authority should consider that in these areas, satellite may be the best option, although it is a relatively more expensive technology.

Access to high demand spectrum will enable the cost effective construction of LTE networks. These are faster than 3G networks; and ultimately LTE coverage could surpass 3G. The Authority should consider that unless 3G networks in rural areas are buckling due to overutilization, there is little incentive for operators to roll-out LTE networks.

Whereas most countries have auctioned off high demand spectrum, South Africa seems to have taken a different route. It would not be unreasonable to hypothesize that obligations could be attached to spectrum licences. There are several examples in the EU of operators forming Joint Ventures (“JVs”) in rural areas in fulfilment of roll-out obligations using a single network. In order for such to work, and so as to extract maximum efficiencies, spectrum needs to be pooled into the JV. Telkom recognizes recent amendments to the EC Act which allow spectrum to be ceded and transferred with permission of the Authority, and we interpret this to form the legal basis for spectrum pooling. We encourage the Authority to promote spectrum pooling, and consider amendments to the Spectrum Regulations accordingly.

The Authority may also consider that if obligations are attached to High Demand Spectrum licences, then operators will seek to cross subsidize between Zone 1 and Zones 2/3 in the GAP model. As a result of such cross subsidisation, prices in urban areas are likely to remain at their current levels. If however government subsidizes Zones 2 and 3 through smart subsidies and on-going anchor tenant expenditure, operators will be in a better position to reduce prices in urban areas and ensure increased uptake in rural areas.

Various commentators have argued that more mobile competition will lead toward universal broadband access. Telkom does not support this argument: more competition is likely to



reduce sustainable margins in urban areas, and existing operators are likely to be even less able to invest in rural areas. Instead, universal broadband can only be achieved off the back of the financial strength of the existing operators; and hence it is imperative that spectrum be assigned to these operators rather than to new entrants.

█ In countries where LTE networks have been introduced, with or without High Demand Spectrum, there have seldom been price decreases associated with the launch of such networks (even with new entrants). In many countries mobile operators are still paying off their 3G investments, whereas LTE networks necessitate additional investments in radio equipment and fibre backhaul. The benefit to consumers has therefore primarily been faster speeds, rather than price reductions where LTE has been introduced.

█ Spectrum fees have increased substantially under the AIP formula imposed in 2012. Consequently we invite the Authority to consider their part in lowering the cost to communicate through the reduction of spectrum fees to reasonable levels, and to consider the possible forbearance of spectrum fees on high demand spectrum

█ If the objective is to lower the cost to communicate, Telkom would advocate Government to support this by means of a financial stimulus on the demand side of the equation. In particular there could be a national “e-bucks” scheme whereby Government would allocate each registered citizen a monthly quota to spend on the operator and access technology (LTE, 3G, WiFi) of their choice. Participating operators would be able to redeem these e-bucks from Government at an agreed conversion rate. Hence the construction of networks would be supported through consumers exercising their choice; ensuring that investments are funnelled according to their spending patterns.

█ The allocation of high demand spectrum on its own is highly unlikely to fully address all the challenges associated with the Digital Divide; especially if it is assigned under an onerous licencing regime or to new entrants who are unlikely to be in a position to invest significantly and further reduce the costs to communicate.

6 CONSOLIDATION

6.1 DEFINITIONS

█ Consolidation broadly denotes a situation or state whereby a number of entities have, through design, become one or work together. A number of factors tend to influence or lead to consolidation. These include technology evolution, the quest to increase the product offerings of the consolidating firms, the quest for competitive advantage, the pursuit of economic efficiencies and the achievement of economies of scale and scope, to name a few.

█ Plurality, literary means a state of being plural or numerous. Ordinarily, theory dictates that plurality ought to result in fierce competition in a sector or the segments of a sector where it exists. However, because not all licensees necessarily have the same standing, the



Authority has suggested that plurality has not resulted in fierce competition in the South African ICT Sector.

█ The requirements of the sector are such that in order to enable effective competition and the sustainability of the sector, consolidations are a more likely outcome than the existence of numerous unprofitable entities.

█ Alongside privately owned licensees the Authority needs to consider the role of state owned enterprises ("**SOEs**") providing ICT services in SA. There are several SOEs which could be more efficient if consolidated, rather than retaining the numerous entities with the same scope to provide ICT services to the public sectors.

█ It is common cause that geographically, the sector is not equally developed across South Africa. The geographical diversity and population distribution of South Africa cannot be ignored when determining whether the forces of consolidation or plurality are likely to be the drivers in providing ICT services. For example, in the deep rural areas consolidation may be the best means of achieving meaningful ICT infrastructural development: since it is only through achieving economies of scale that investment which enables access to basic services will occur. In the metropolitan areas, however, population and income densities are high; ICT infrastructure is well developed and plurality is more likely to achieve effective competition. Consolidations between existing parties may therefore have to be scrutinised more carefully.

6.2 FORMS OF CONSOLIDATION

█ The most common form of consolidation is through mergers and acquisitions: often between offshore and local entities or between local firms and/or licensees within the sector. On the whole, mergers and acquisitions have proven are a popular form of consolidation the world over. They are, however, subject to strict scrutiny in most international jurisdictions, including SA. The South African Competition Authorities have been statutorily established to deal, amongst others, with mergers and acquisitions by all firms or companies involved in economic activity in SA. To avoid any jurisdictional issues between the Competition Authorities and the Authority, the Authority does not need to establish any further regulations in this regard: the Competition Authorities are mandated to deal with any public interest issues and competition concerns arising from proposed mergers and acquisitions. Further, if any merger or acquisition is found to be of concern to the Authority, the DoC or the DPTC, these issues can be brought to the attention of the Competition Authorities. The Competition Authorities have the power to approve, prohibit or conditionally approve a merger, depending on its likely effect on competition and the public interest. Through their processes the Competition Authorities are empowered; their work does not need to be duplicated.

█ The scarcity and/or difficulty of duplicating facilities that licensees require to run their businesses often lead to some form of consolidation through sharing of facilities. The sharing of facilities in various ways such as through collocation, roaming, leasing, etc., is



common practice in the ICT sector. Regulations pertaining to such arrangements should be reviewed by taking into consideration the competitive dynamics in the sector and the ability of a number of entities to either self-provide, or provide alternative offerings that are substitutes for what has traditionally been provided.

6.3 CONSOLIDATION VERSUS PLURALITY

██████████ A recent study by Deloitte¹² has indicated that in the area of merger activity, African transactions in the telecommunications have proven to offer a net premium compared to, for example, the United States. Based on this research investment in telecommunications in Africa is likely to continue to be attractive, especially for developed market bidders who continue to seek growth opportunities.

██████████ Telkom concurs that the limitation of growth opportunities offered by developed markets is one of the primary drivers for the African multiple acquisitions as there is high expectations around growth prospects.

██████████ Further, the effects of the recent global economic downturn has resulted in many underperforming companies changing ownership, shedding their non-core assets, or forming strategic alliances and partnerships to optimise on efficiencies for survival. South Africa is no exception.

██████████ Further, it has been observed that certain segments of the ICT market may require large-scale investments to adequately address urgent needs, for example, demand for stable, high-speed broadband. It is incumbent upon the Authority to ensure that the regulatory environment is conducive to investments that are likely to benefit the growth and development of the ICT sector and thus enhance consumer welfare. Issues that need to be considered include the consideration of regulations that will avoid the duplication of infrastructure and encourage its roll-out into areas that would otherwise prove unfeasible etc.

██████████ Depending on specific circumstances, consolidations and plurality are likely to have different outcomes in achieving the desired Government objectives, depending on whether or not they occur in the markets that are characterised by effective or ineffective competition. The Authority therefore needs to consider that consolidations do not necessarily lead to ineffective competition and similarly, plurality may result in ineffective markets. The effect of consolidations in the ICT sector is adequately addressed by the merger review process which is the responsibility of the competition authorities. This process currently allows for the Authority, the DoC and other stakeholders to ensure that their concerns are addressed. The state of plurality should be addressed by market forces and regulations should not be seen as a means of hampering or forcing such plurality. It should rather be incumbent upon the Authority to draft regulations that will enable

¹² See: Deloitteblog.co.za – article: “Do African M&A transactions command a premium on developed market earnings multiples?”



competition where plurality is justified and encourage infrastructure roll-out in underserved areas that may not be commercially viable without some form of Public-Private Partnership (“PPP”). A relaxation on prohibitions on spectrum pooling will be required to give practical effect to such.

Some form of regulatory forbearance may be necessary in order to achieve some set objectives and desired outcomes in the ICT sector or across all segments. For example, if universal obligations are imposed they could make it extremely difficult, or impossible, for some licensees to meet imposed obligations and still render a competitive service.

Given the dynamic nature of the ICT sector it would be necessary for the Authority to assess markets regularly with a view of ensuring that the required regulations and regulatory forbearance are necessary to increase access, affordability and product choice for consumers across all markets regardless of the geographical area.

In the rural and underserved areas, where for example income levels are low and population density is sparse, it would be advisable for Government to rather take it upon itself to ensure that basic and necessary ICT services are provided. It would be highly unlikely that licensees would be able to invest profitably in such areas. Further, consideration of alternative ownership models and/or appropriate subsidies for such ventures may be a suitable option to employ.

Finally, consolidation of the numerous existing SOEs into one entity could achieve the efficiencies required to achieve the overall ICT objectives and ideals.

6.4 REGULATORY CONSIDERATION

In light of the above, the Authority needs to articulate how it intends to balance the divergent needs in the ICT Sector. In order for the Authority to be able to achieve the objectives of competition policy Telkom suggests that the following questions need to be asked:

- a. Should special dispensation be enacted by the Authority to deal with consolidations that occur in the underserved areas? If yes, advise. We don't envisage such as likely to occur in the telecommunications sector.
- b. With regards to consolidations that occur in effective markets what role, if any, should the Authority play to ensure that the sector is improved through such consolidations? The Authority's role is to enable the market, not shape the market.
- c. Should drastic steps beyond the existing framework be considered to deal with and address the state of plurality that exists? If yes, precisely what?
- d. In terms of section 4B(1)(a) of The Authority Act, it is clear that the Authority has embarked on the Inquiry in order to determine whether the trajectory of the sector has moved towards the objectives of The Authority Act and the ECA. Since many of the questions are based on speculation, does the Authority also seek to obtain from operators any material evidence which can corroborate the forward looking perceptions of numerous industry players?



7 CONCLUDING REMARKS

- 7.1** Given the rapid advances in the ICT sector in general and, more specifically, in telecommunications technology, Telkom supports the Authority's enquiry to determine the state of competition in the ICT sector.
- 7.2** In this submission Telkom has attempted to highlight some of the competitive dynamics which it has observed within the sector which should serve as a useful starting point for the Inquiry. The aim of which should be to ensure that outdated regulations are repealed and that appropriate regulations are in place to ensure that the Authority delivers on its mandate to ensure affordable high quality ICT services for all South Africans.
- 7.3** Telkom looks forward to engaging with the Authority as the Inquiry progresses through its iterative stages.