# Representation to ICASA by IITPSA on state of competition in the ICT sector

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# Introduction

The Institute of Information Technology Professionals South Africa (IITPSA, previously known as Computer Society South Africa) is the body for practising and aspiring professionals engaged in the information technology sector. IITPSA is recognised by the South African Qualifications Authority (SAQA) and its professional grade of membership (PMIITPSA) is a registered professional designation at SAQA.

IITPSA traces its history over nearly 60 years, is a member of the International Federation for Information Processing (IFIP) and of the Africa Information & Communication Technology Alliance (AfICTA). IITPSA has approximately 4 000 members in South Africa and promotes the teaching of skills and professional practices in enabling technology to fuel economic growth and social development.

IITPSA members and officials serve on several boards and committees relevant to the activities in the information and communications technology (ICT) sector and regularly participate in appropriate forums.

# ICT Sector

IITPSA believes that ICASA must be clear on what it includes (or excludes) when referring to the "ICT sector". The Notice of Public Inquiry states that one of the objects of the ECA is to promote competition within the ICT sector and goes on to say that ICASA is "enjoined to promote and facilitate the convergence of telecommunications, broadcasting, information technologies and other services".

However, the remainder of the document focuses on communications and broadcasting and makes little reference to the range of activities that comprise the information technology and related services portions of the sector.

IITPSA will respond to the matters raised in the Notice but urges ICASA to take a fresh look at the structure of the "sector" in the light of 21$^{st}$ Century realities and how the changes in technology have changed the face of this environment. The reality of convergence is that we should view the ICASA mandate in respect of the following layers:

- The infrastructure layer – whether it is cable (fibre or copper) or wireless, terrestrial or satellite, this is the enabling network that provides access for all users.
- The application layer – this is the software that makes the network functional, from operating systems to business applications, from identity management to digital games.
- The content layer – this is the data generated by, shared with and belonging to the users of the applications and the networks.
- The device layer – from mainframes to desktops, from laptops to mobile phones, from robots to implants, these are the physical items that are the interface between the users and the applications.

The roles of the stakeholders and the status of competition within each of these layers will be subject to different influences and imperatives. It is important to take note of the effects of globalisation, the need for interoperative standards and the wide variation in scale of enterprises at each level.

IITPSA suggests that ICASA's role should be to promote the construction and maintenance of the infrastructure layer and (in conjunction with the SABS) to ensure that the devices attached to the infrastructure are safe to use and compatible with technical standards.

# Electronic communications market

At first glance, the number of operational licensees at over 400 would indicate a competitive environment. However, this information is insufficient to make that judgement, as it does not reveal how many licensees are in competition with others. For example, a local WASP may have no direct competitor and cannot be said to compete with a national service provider. Similarly, a licensee operating (for example) radio trunking or vehicle tracking services will not be competing with a WiFi service.

IITPSA is concerned by the very high number of non-operational licensees at nearly 300. If such licensees have been allocated spectrum that can (and should) be used by others, their licences should be withdrawn and re-allocated.

## The cost to communicate, competition and consolidation

The point made above would provide the reason for the failure of the "profusion" to reduce the cost of communication, i.e. there is little real competition in spite of the number of licensees. There is no doubt that the provision of infrastructure is very expensive and the economies of scale require providers to achieve critical mass in the market. Unlike other forms of infrastructure (roads, railways, pipelines, electricity), where the initial investment can be depreciated over many years, communications infrastructure requires constant re-investment to upgrade the networks to cater for newer technologies.

The providers of communications infrastructure will have to approach their business model from a new perspective, where the content moving across the network is regarded as digital traffic and not separated into voice, data or video. The revenue generated from the traffic must be sufficient to provide the carriage of the volume at a speed that satisfies the expectations of the transmitting/ receiving users. The debate about "net neutrality" is pertinent to this issue.

This leads on to the effect of advancing technology on the speed/capacity of the network and the risk of widening the so-called "digital divide" if parts of the network perform better than others, thus depriving some members of the community of the full benefits to be derived from being connected. The proliferation of WiFi services in locations where people gather is reducing the connection cost for many users but also emphasises the "divide" between urban and rural dwellers.

Can South Africa go against the global trend of large multinational service providers? It is unlikely. The recent deals involving MTN/Telkom Mobile and Vodacom/Neotel serve to underline the challenges faced by new entrants in attempting to achieve profitability. Asymmetric pricing at the wholesale level does not seem to provide more than short-term relief to the small player(s) and is not a long term solution.

## Spectrum

Who should pay for spectrum, and why? Spectrum is a finite resource that belongs to nobody and everybody. For technical reasons, it makes sense to licence its use, to bring order to the carriage of traffic and to allocate the most appropriate frequencies to the relevant types of traffic. IITPSA

believes the quantum of that payment should be no more than is required to provide the administration service. The right to affordable access is the primary driver for this. It is essential that no organisation that has historically been allocated spectrum should be able to retain it unless they can demonstrate current use. Unused spectrum MUST be made available.

IITPSA recognises there are challenges in sharing spectrum between providers competing for the same frequencies but does not believe that this should be resolved on the basis of price, as the high cost of spectrum will be passed on to the consumer.

Does it matter if broadcasters pay for spectrum? In the analogue world, you could argue that the users paid for some of it, through the TV licencing regime. In the converged digital world, there are unlikely to be "broadcasters". There will be content providers and users will choose how to interact with that content. Will IPtv compete with DTTv and DStv? It will be interesting to assess the impact of the emerging "smart TV" model that Samsung (and other manufacturers) are releasing into the market, with a massive data bundle included in the package.

As mentioned above, the use of "free" spectrum for WiFI, WiMax and mesh networks is proliferating but there seems to be little analysis of the limitations and risks of this environment. Thus far, it seems to IITPSA that the regulator should promote the use of this technology in all areas, as it is low cost for both the provider and the user.

## Broadcasting market

IITPSA does not claim any expertise in the broadcasting arena, so the following comments are from the layperson's perspective.

The market dynamics include what might be termed artificial influences arising from policy – such as the public broadcaster and the switch from analogue to digital television – and issues of scale, that include multinational private sector providers, commercial and community services at local level and access to certain services via the Internet. The mix of national (international) broadcasters, public service requirements, collection of licence fees for receivers, subscription services and community stations vs commercial stations creates an intricate marketplace. Barriers to entry seem to be high, judging by the failure of awardees of TV licences to become operational.

The switch to DTTv has also created the contention around conditional access, delaying the production and distribution of STBs. IITPSA believes the rights of the consumers should pre-empt the concerns of the providers in this matter.

Consumers vs Multichoice? IITPSA does not believe the consumers are at the mercy of the provider – they can terminate the service, or reduce to a smaller bouquet of channels, if they believe the price is too high. Simple market forces dictate that if a "monopoly" supplier is making excessive profits, new entrants will come into the market to eat into those profits. If they have not been able to do so, we would contend there are extraneous factors that need to be considered.

## Convergence and the Internet

IITPSA does not fully understand the opening statement under this heading. We believe there has been considerable ongoing debate about the impact of convergence on the provision of products and services in the information technology arena. As we remarked earlier, we are concerned that

the reference to the "ICT market as a whole" is a glib use of a phrase that really has no meaning in the context of ICASA's role in the market.

IITPSA contends that convergence and the Internet comes down to one issue – the availability and affordability of Broadband. The following extract from the article, written by ITWeb's deputy editor, Nicola Mawson, and published on 21 May 2014, illustrates the point:

> If the operators – and the state – want to put data in everyone's hands, we're going to need much more spending. Several times more magnitude of spending.
>
> But, spending isn't enough on its own. The state needs to step up to the plate and put enablers in place. Like releasing more spectrum, for starters.
>
> Granted, operators cannot get their paws on any space in the digital dividend until television moves off analogue and – at this rate – we may well be looking at 2016, and then it will be three years before that space is freed up for operators' use. Yet, frequency in 2.6GHz is available and can be handed out so that long-term evolution, for example, can be rolled out in built-up areas.
>
> Faster broadband = increased speed of communications = greater productivity = economic benefit. A simple equation when our economy is languishing at a growth rate of below 4%, a rate that is not nearly enough to create much needed jobs.
>
> Broadband in rural areas – which will be boosted by the use of the 800MHz spectrum currently used for broadcast – should also bring more people into the e-ecosystem. When people can get online, they can connect.
>
> But we need to move on this, and we must do so now. More investment, more spectrum, more digital inclusion.

# Innovation, net neutrality and disruptive technologies

South Africa needs to encourage innovation and welcome disruptive technologies at every opportunity. Only by seizing these opportunities can the country leapfrog its way to a more productive and competitive position in the global market.

Dumb pipes are good. As suggested earlier in the paper, the provision of the infrastructure layer at affordable rates is the pre-cursor to enabling the delivery of services and content.

We cannot legislate for future innovation and disruption but we should ensure that ICASA's policies include the removal of restrictive and inappropriate regulation as soon as it become evident that it is obsolete.

Too many attitudes are anchored in the days of fixed copper line telecommunication and "steam radio".

## Competition and the inquiry

Given the crucial and irreversible role that ICTs play in the modern world, it is inconceivable that the term "market failure" should be contemplated as a real possibility. There is no way that the ICT market will fail.

That is not to say that some enterprises will not fail. They will. That is a necessary function of a competitive environment. Even among the global players, we see IBM ceasing to manufacture PCs, Samsung ceasing to supply laptops.

If ICASA's mandate is to be a pro-competitive regulator, then it must follow that mandate and not be diverted by the interests of incumbents or of conflicting policies from other sources.

IITPSA urges ICASA to review the market structure in the terms we outlined in the section on ICT Sector, earlier in this paper.

## The Scope of the Inquiry

IITPSA has attempted to address the issues listed under the scope of the inquiry. We are eager to remain engaged in the process and are willing to participate in relevant forums. Our membership has a keen interest in the use of technology in the economic and social development of a better future for South Africa.

IITPSA suggests that the scope should include investigation into why South Africa dropped from 29th out of 64 countries in the 2007 BSA Industry Competitive Index to 49th out of 64 in 2011, and why South Africa dropped from just in the top 20 outsource countries out of 38 to 29th out of 38 in the same period.

## Conclusion

IITPSA thanks ICASA for this opportunity to submit its representation concerning the state of competition in the ICT sector.  We will be happy to clarify any of the matters discussed herein and look forward to the outcome of this process.

## Contact details

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