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GENERAL NOTICE

NOTICE 807 OF 2010



Independent Communications Authority of South Africa
Pinmill Farm, 164 Katherine Street, Sandton
Private Bag X10002, Sandton, 2146

INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA

DISCUSSION DOCUMENT: UNIVERSAL SERVICE AND ACCESS OBLIGATIONS REVIEW

- (1) The Independent Communications Authority of South Africa ("The Authority") hereby, in terms of section 4B of the ICASA Act (Act 13 of 2000, as amended) hereby publishes the Discussion Document on the Review of Universal Service and Access Obligations.
- (2) A copy of the Discussion Document is available on the Authority's website at <http://www.icasa.org.za> and in the ICASA Library at 164 Katherine Street, PinMill Farm, Sandton Block D, between 08h30 and 16h30, Monday to Friday.
- (3) Interested persons are invited to submit written comments or written representations with regard to the Discussion Document, to be received **by no later than 16h00 on 12 November 2010** by post, hand delivery, facsimile transmission, or electronically (in Microsoft Word) for the attention of:

Mr. Thato Mahapa (Project Leader)

Independent Communications Authority of South Africa
Private Bag X10002
Sandton
2146

Delivery address: Block B, Pinmill Farm, 164 Katherine Street, Sandton. Where possible written representations should also be **e-mailed** to: tmahapa@icasa.org.za and lmorobane@icasa.org.za

Enquiries can be directed to the Project Leader on:

Landline: 011 566 3215

Fax: 011 566 3216

- (4) All written representations submitted to the Authority pursuant to this notice will be made available for inspection by interested persons at the Authority's library and copies of such representations will be obtainable on the payment of the prescribed fee.
- (5) At the request of any person who submits written representations pursuant to this notice, the Authority may determine that such representations or any portion thereof is confidential in terms of section 4D of the ICASA Act. If the request for confidentiality is refused, the person making the request will be allowed to withdraw such representations or portion thereof.
- (6) Once all representations have been considered, the Authority will release its findings to reflect any decisions made.


Dr SS Mncube
CHAIRPERSON



**DISCUSSION DOCUMENT ON THE REVIEW OF UNIVERSAL SERVICE AND ACCESS
OBLIGATIONS FRAMEWORK (USAOs)**

AUGUST 2010

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ICASA DISCUSSION PAPER: REVIEW OF UNIVERSAL SERVICE AND ACCESS OBLIGATIONS FRAMEWORK (USAOs)

1. INTRODUCTION

- 1.1. The Independent Communications Authority of South Africa ("ICASA, hereinafter referred to as the Authority") is in the process of reviewing the Universal Service and Access regulatory framework including the existing universal service and universal access obligations ("USAOs") framework.
- 1.2. As part of the process of reviewing the USAO framework, the Authority has decided to undertake an inquiry in terms of section 4B of the Independent Communications Authority of South Africa Act (13 of 2000 as amended). The purpose of the inquiry is to ensure that the public participates in the process and is able to contribute to the Authority's efforts to determine an appropriate USAOs framework for the Republic.
- 1.3. To this end, the Authority has analyzed existing licences and established the USAOs that currently exist and assessed the extent to which obligations have been complied with. The exercise also considered the effectiveness of the current framework and included an international benchmarking study.
- 1.4. A copy of the report that captures the work above, including a separate assessment of compliance with the existing obligations, is available in the Authority's library. Interested persons are encouraged to obtain copies of the report as it provides valuable context and background to this discussion document and is to be read in conjunction with this Discussion Document.

2. BACKGROUND

- 2.1. The report referred to above took into account previous and existing USAOs and considered compliance with those USAOs given the information available at its disposal. The review also included a benchmarking study that considered various jurisdictions for reasons fully set out in the report for each country.
- 2.2. The purpose of the review is to inform the need for a revised USAO regulatory framework and the development and publication of regulations in terms of section 8(4) of Chapter 3 of the Electronic Communications Act (Act No. 36 of 2005 as amended, hereinafter referred to as "the ECA"), which states "*The Authority may by regulation make provision for the designation of licensees to whom universal service and universal access obligations are to be applicable*".

- 2.3. The primary focus areas of the report include:
- 2.3.1. Analysis of the existing licences to extract a full set of USAOs currently implementable in terms of the existing licences as well as historical USAOs;
 - 2.3.2. Evaluating the extent to which the USAOs have been complied with and the effectiveness of the current model; and where there has not been full compliance, an analyses of the reasons for the non-compliance;
 - 2.3.3. An international bench marking exercise which takes into account approaches adopted in foreign jurisdictions as regards the implementation of USAOs;
 - 2.3.4. A review of the existing model if required, taking into account the findings of the review, the benchmarking exercise and the definitions adopted by the Universal Service and Access Agency of South Africa (USAASA) in respect of “Needy Persons”, “Universal Service” and “Universal Access” as recently published by the Minister; and
 - 2.3.5. A manner for implementation in terms of the ECA should a new model be necessary.

3. CONCEPTUAL ISSUES

- 3.1. USAO is a general term used, and can include various financial and other types of obligations imposed on licensees, related either to their service or spectrum licences. The fundamental justification for introducing and/or continuing USAOs is based on the reality that, in their absence, there will be numbers of residents within a country who inevitably do not have, or are denied access to specific electronic communications services. This lack of access arises for one or both of two reasons: either it may be uneconomic for licensees to provide services in some areas of a country’s territory, and/or some residents’ incomes may be too low for them to afford access at reasonable prices to the services available at their locations.
- 3.2. USAOs are necessary, although not sufficient, for overcoming the “digital divide” which inhibits all residents of a country from being able to enjoy equal economic and social opportunities and exploit their individual and cooperative capabilities to the utmost of their potential.
- 3.3. Global experience with extending Universal Access (UA)/Universal Service (US) policies has expanded considerably in recent years. The most successful initiatives have been the market-based reforms associated with the liberalisation of the mobile sector, supported by a stable regulatory environment and the subsequent exponential growth in customers in developing countries. These initiatives have allowed market forces to contribute fully and thereby close the market gap. The

market efficiency gaps have to first be removed through removing legal and regulatory barriers. The next step is to address the market access gaps. The UA gaps can be addressed through different mechanisms. Areas that potentially have commercially viable markets can be assisted by lowering the economic barriers to market entry and operation through subsidising infrastructure, either directly for designated networks and/or via competitive tendering for projects that qualify for support from universal service and access funds (USAF), and/or through sharing of infrastructure. Programmes that offer communal access to electronic communications services can be implemented for those customers who cannot afford to pay commercially viable prices through any of these initiatives.

- 3.4. Although at a fundamental level the goals behind the implementation of USAOs may be similar in many cases, the specific content and mechanisms for their implementation vary significantly between countries. Traditionally US has often been linked to fixed telephone access, but increasingly mobile access or other wireless networks are also involved, and in addition, internet access and broadband access in particular, are being considered and targeted. Approaches and obligations imposed by countries to increase UA and US vary and so both US and UA initiatives are covered. These are the key motivations why obligations and funds are instituted which are intended to serve the fundamental objective of maximising public welfare.
- 3.5. It should also be emphasised that the scale and scope of USAO initiatives that may be required or justified are not independent from the structures, pricing levels, deployed technologies and other aspects of the purely commercial (i.e. unsubsidised) electronic communications markets themselves. Market structures and dynamics influence how many residents of a country are unlikely to be served by or are unable to afford access to network services.
- 3.6. The World Trade Organisation (WTO) states that member countries have the right to define the kind of universal service obligation (USO) they wish to maintain, provided such obligations are:
 - 3.6.1. not anticompetitive;
 - 3.6.2. are administered in a transparent, non-discriminatory and competitively neutral manner;
 - and
 - 3.6.3. may not create unnecessary burdens on service suppliers¹
- 3.7. The International Telecommunication Union (ITU) states in its ICT Regulation Toolkit² that *"in a monopolistic environment the incumbent operator had to fulfil whatever social obligations were*

¹ ICT Regulation Toolkit: 3.2.1 Role of the World Trade Organization

required and although universal service obligations (USOs) were often not explicit they were considered as part of the organization's general public service mandate. However in a liberalising market, imposing USOs on the incumbent operator alone is contrary to the objective of creating a level-playing field. In some countries obligations were given to all operators but the trend is now to more competitive procedures. This allows the responsibility of universal access and service (UAS) provision to be able to be shared more proportionally as all players have an opportunity to participate in the provision of UAS, typically through a competitive mechanism."

- 3.8. In Australia the Review of the operation of the USO³ states that USOs should be fulfilled:
- 3.8.1. effectively, efficiently and economically;
 - 3.8.2. in ways that are consistent with an open and competitive telecommunications regime; and
 - 3.8.3. in ways that are, as far as practicable, responsive to the needs of consumers
- 3.9. Some other key guiding principles also need to be considered when developing a USAO framework:
- 3.9.1. The USAO interventions need to support national imperatives, government policies and strategic direction;
 - 3.9.2. The USAOs need to be aligned legislation governing and influencing them as well as what has been stipulated in the licences of the entities governed by the regulations; and
 - 3.9.3. A clear assessment of the market access gaps needs to be taken into consideration so as not to cause market distortion and, at the same time, being able to effectively target the appropriate underserved areas or communities.

TARGETS OF USAO INITIATIVES

- 3.10. The targets include:
- 3.10.1. Rural or underserved areas in which characteristics such as their topography and the density of users (i.e. potential revenues/km²) make it uneconomic for purely commercial or private sector investors to justify the deployment of networks (costs are too high to achieve attractive returns on investment at affordable prices).
 - 3.10.2. Citizens and communities wherever they are located whose incomes are insufficient to allow them to afford access to electronic communication services. USAOs can either be through direct or individual provision of services or via shared access. Economic considerations (minimising costs) encourage approaches that provide subsidised access to shared telecommunications services at accessible locations (e.g. telecentres in public

² ICT Regulation Toolkit: 3.1.1 Universal service at the time of monopoly

³Review of the operation of the universal service obligation, Australian Department of Communications, Information Technology and the Arts, 7 April 2004

buildings or privately owned locations, schools or clinics) as an alternative to providing this access to all individual residences, or as a complement to extending access to more individual residences on a subsidised basis.

- 3.10.3. People with special needs or disabilities (e.g. deaf, blind), or special requirements (e.g. elderly).
- 3.11. In terms of broadcasting; coverage, availability, accessibility, language and local content also need to be taken into consideration.
- 3.12. Services included within USAO programmes:
 - 3.12.1. Direct or individual provision of services versus shared access;
 - 3.12.2. Traditionally voice services have been the focus of USAO initiatives, but increasingly internet access and broadband access in particular are being considered and targeted;
 - 3.12.3. Broadcasting services, especially in the light of the impact of the changeover to Digital Terrestrial Television (DTT); and
 - 3.12.4. Other supportive services like training, maintenance and operational costs.
- 3.13. Clear targets and timelines need to be set out, with onerous enough penalties for non-delivery to be stipulated and enforced where necessary to discourage non-delivery or non-compliance.

MECHANISMS AND PROCEDURES FOR IMPLEMENTING USAOS

- 3.14. These mechanisms and procedures involve choices regarding the following:
 - 3.14.1. Entities that are eligible for and in some cases obliged to provide US, and if so how;
 - 3.14.2. Procedures, if multiple entities are eligible, for choosing the UA/US provider(s) and the parameters within which USAOs are defined (e.g. by geographic area, income groups, other);
 - 3.14.3. Technologies eligible for delivering services under UA/US obligations (whether they are limited or left up to the US provider to decide – traditionally UA/US has often been linked to fixed telephone access, but increasingly mobile access or other wireless networks are also involved);
 - 3.14.4. Funding of costs to provide USAOs e.g. contributions from specified entities (network operators, ISPs, other) either related to their revenues and/or profits; and/or payments derived from UA/US-specific charges imposed as a line item that are included in the retail prices paid by customers; and/or contributions from general taxation or from funds dedicated to economic development, education, and other purposes;

- 3.14.5. Disbursements from funds that support USAOs, i.e. either to operators and/or directly to economically disadvantaged individuals or families to help them pay for their access to network services (another form of subsidy involves offering preferential prices for access to designated institutions such as schools); and
- 3.14.6. Management, monitoring and supervision of the performance of the entities involved in satisfying USAOs (the operators and the managers of the USAF). Stringent monitoring and evaluation needs to be carried out frequently in order to be able to assess progress and to redirect efforts where necessary. Mechanisms need to be in place to ensure that licensees are obligated to report progress at frequent intervals as well

INITIATIVES PUT IN PLACE TO ACHIEVE SPECIFIED US AND UA GOALS

- 3.15. Initiatives put in place to achieve goals specified under US and UA programmes include a mix of:
- 3.15.1. Obligations placed on licensees which they must fulfil or be penalised or even have their licences withdrawn;
- 3.15.2. Public funding to support network investments from sources such as Universal Service Funds (USF), national budgets and external donations or loans (e.g. World Bank, foreign aid and loans);
- 3.15.3. Other public and PPP (public/private partnerships) efforts directed at improving and expanding access to and opportunities for education, health care and other public services via network-enabled applications and services;
- 3.16. The terms 'Pay' and 'Play' have often been used to describe the way licensees fulfil universal obligations with 'Pay' meaning payment to a USF and 'Play' meaning licensees having USAOs that are tied to their licences. Various combinations of these arrangements exist.

4. POLICIES AND REGULATIONS THAT IMPACTED USAO

- 4.1. In understanding the context of the USAOs in SA we need to consider the international and national policies, regulations and agreements that impact on USAOs. In South Africa the consultative telecommunications reform process concluded with the promulgation of the Telecommunications Act No. 103 of 1996 (The Telecommunications Act). The Telecommunications Act institutionalised two overarching public policy objectives for South Africa's telecommunications market, namely: (1) advent of competition and its consequent benefits; and (2) expansion of telecommunications services and access to previously under-served populations.
- 4.2. Through the Telecommunications Act, the government fundamentally altered the structure of South Africa's telecommunications market. The Telecommunications Act replaced a self-regulating,

monopolist environment with a liberalised, market-driven environment through policies and regulations that not only introduced competition, notably through expiry of Telkom's open-ended monopoly, but also prioritised the rollout of telecommunications services and access to a greater segment of South Africa's population, notably through creation of the Universal Service Agency and USF.

- 4.3. In 1998, South Africa adopted the WTO's Basic Agreement on Telecommunications (GATS 4th Protocol) and the Reference Paper on basic telecommunications services⁴. In November 2001 the government embarked upon a second phase of managed market liberalisation with the introduction of the amendments to the Telecommunications Act. These amendments introduced substantive legal and institutional changes which, at the time, enabled a forward-looking regulatory regime capable of addressing the impact of increasing market activity and technological advancements.
- 4.4. The amendments explicitly acknowledged the growing role of communications technology as a socio-economic development barrier to certain segments of South African society by amending the Telecommunications Act's objectives to include development of a public policy strategy to bridge the digital divide. As part of advancing US and UA, various USAOs were imposed on telecommunication operators in order to address the access and service gaps. These obligations included basic obligations like access to free emergency services, network rollout obligations that stipulated geographic and population coverage, USOs, community service obligations including schools and clinics, as well as contributions to the USF.
- 4.5. The activities of fixed line and mobile operators towards satisfying their US and community service obligations, respectively, can be divided into two performance periods. For fixed line operators, the initial round of obligations involved those US requirements imposed on Telkom as part of its award of a Public Switched Telecommunications Service (PSTS) Licence (as per Government Gazette No. 894 of 2002) while the second round of obligations involved those US requirements imposed on the second national operator. For mobile telephony operators, the initial round of obligations involved those community service requirements imposed on Vodacom, MTN and Cell C as part of their initial licence terms while the second round of obligations involved those additional community service obligations imposed on all three of these operators pursuant to receipt of their 1800 MHz spectrum and 3G licences. Neotel, iBurst and Sentech were subsequently also given obligations with their licences.

⁴ ICT Regulation Toolkit: 3.2.1 Role of the World Trade Organization, http://www.wto.org/english/tratop_e/serv_e/telecom_e/tel23_e.htm

- 4.6. Some of the obligations imposed to address the digital divide included, amongst others, the community service telephones (CST), public pay telephones, and internet access for hospitals, clinics, and schools at an E-rate.
- 4.7. In relation to the USF, the Telecommunications Act stated in section 67(1) that *'Every holder of a licence granted or deemed to have been granted in terms of Chapter V shall pay, in addition to licence fees contemplated in section 88(2), the prescribed annual contributions to the Universal Service Fund with effect from a date fixed by the Minister by notice in the Gazette.'*
- 4.8. The regulations on USF contributions were published⁵ on 4 June 1999 and were subsequently replaced⁶ on 28 August 2003. The regulations stated that *'Every holder of a licence issued or deemed to have been issued in terms of Chapter V of the Act, shall pay an annual contribution of 0.2% of the annual turnover derived from the provision of the telecommunication service that it is licensed to provide, to the Fund.'*
- 4.9. This framework was replaced when the ECA came into effect on 19 July 2006 and the USAF regulations were issued in terms of Section 89 of the ECA. The ECA states that the contribution should not exceed one percent (1%) of the licensee's annual turnover as may be determined by the Minister and in consultation with affected parties, by notice in the Gazette. These regulations were published⁷ on 10 October 2008 and came into effect on 1 April 2009.
- 4.10. The ECA further provides that broadcasting service licensees who have paid an annual contribution to the Media Diversity and Development Agency (MDDA) must set off that contribution against their prescribed annual contributions to the fund. Contributions are payable to the Authority within three months of the licensees' financial year end, with the first contributions being payable for the financial year ending 2009/2010.

5. OTHER NATIONAL PRIORITY AREAS AND POLICY INITIATIVES

- 5.1. It is also important to consider that ongoing priority areas and policy initiatives like the AsgiSA⁸, Apex Priorities⁹ the Medium Term Strategic Framework 2009-2014¹⁰ and the strategic direction of the Department of Communications all still highlight the importance of increasing US & UA of electronic communications for all citizens and communities. In the Apex priorities the

⁵ Government Notice No. 29 of Government Gazette No 20162

⁶ Government Notice No. R1241 Government Gazette No 25408

⁷ Government Notice No. 1270 of 2008 in the Government Gazette No. 31499

⁸ <http://www.info.gov.za/asgisa/asgisa.htm>

⁹ <http://www.info.gov.za/otherdocs/2008/apex-priorities0208.pdf>

¹⁰ <http://www.thepresidency.gov.za/main.asp?include=minister/pr/2009/pr07141526.htm>

government identified a suite of Apex priorities to further accelerate the achievement of the promise of a better life for all. One of the priorities (Project 3) was to speed up ICT interventions to provide cheap platforms to increase usage of broadband and other ICT by addressing infrastructure development, cost, and access related issues including the roles of state owned enterprises (Infraco, Sentech) as well as undersea cables for international connectivity.

5.2. The Department of Communications' (DoC) strategic direction of 2009¹¹ onwards included:

- 5.2.1. to connect schools and health centres as well as Thusong Service Centres as part of infrastructure provision through state owned enterprises in underserved areas.
- 5.2.2. transforming and mainstreaming postal services not only as Thusong Post Offices but also as a key player in the ICT sector
- 5.2.3. provision for the E-rate system as the means of promoting connectivity to education and training centres. The implementation of the E-rate dispensation will be assisted by the process being undertaken by the USAASA which includes the publishing of the definition of US and UA.
- 5.2.4. the draft broadband policy which aims to facilitate the provisioning of affordable access and usage of broadband services at national, provincial and municipal levels. The Minister reiterated the commitment to using state owned enterprises like Sentech, InfraCo and USAASA to facilitate the achievement of this goal.

6. AGENCIES AND OTHER DEPARTMENTS

- 6.1. The other agencies that have a key role to play in USAOs are USAASA and the MDDA. With regard to the USAASA, its mandate does not have direct influence on USAOs but this agency does have a supportive role in terms of guidance, support and advice on US/UA goals and initiatives. It also manages the USAF in accordance with the provisions of the ECA.
- 6.2. Another area where USAASA has been very active in the past was rolling out telecentres or Thusong Service centres. USAASA identified that as a way of furthering UA to communications, but unfortunately this programme has been dogged by problems as it has not been rolled out in a sustainable manner.
- 6.3. One of the recent achievements of USAASA was the recommendations of the definitions of US and UA which have been adopted by the Minister and gazetted in February 2010¹². USAASA not only

¹¹ http://www.doc.gov.za/index.php?option=com_content&task=view&id=328&Itemid=457

defined, but also set targets for 'Universal Access, Universal Services, Underserved areas and Needy Persons' and they assist in prioritising areas and persons who may need assistance in the advancement of US and UA. An area that is yet to be finalized is the designing and implementation of a framework/process for the awarding of competitive tenders for US and UA projects in terms of section 90 of the Act.

- 6.4. According to the current policy objectives and the US and UA definitions, it should be emphasized that broadband internet access is an important consideration, more than just meagre internet access.
- 6.5. The definitions of US and UA are now finalised and published. It is envisioned that once the E-rate regulations are reviewed, they will facilitate progress in the rollout of broadband to schools and community centres. Previous obligations only stipulated connection of internet access, but this needs to extend a lot further to ensure sustainability. Issues of cost of access, infrastructure availability and equipment, training and operational costs have to be resolved if USAOs are to have the desired outcome.
- 6.6. The MDDA was set up to enable "*historically disadvantaged communities and persons not adequately served by the media*" to gain access to media. The MDDA was formed pursuant to the Media and Diversity Development Agency Act of 2002 ("MDDA Act"). The objectives of the MDDA are set out in Section 3 of the MDDA Act and include the promotion of development and diversity in the South African media throughout the country, consistent with the right to freedom of information. The funds are applied to direct subsidies or other forms of support including low interest rate loans.
- 6.7. Other national departments that have had some involvement in the determining of obligations or in the rollout of obligations include the Department of Education (DoE) and the Department of Health (DoH).

7. SOCIO ECONOMIC FACTORS AFFECTING USAOS

- 7.1. USAOs and the USAF are intended to address the access gaps in electronic communications to the citizens of this country. In order to determine which areas have to be prioritised, it is essential to understand the needs of the country and the current penetration of electronic communications services. It is widely accepted that there has been a massive growth in cellphone penetration in SA and over the same period a decline in fixed line telephony, although

¹² Government Gazette 32939 of 8 February 2010.

there isn't consensus on the extent of both effects respectively. It is also widely accepted that internet penetration is still very low.

- 7.2. Although the rollout of public and community telephone services has been relatively successful in addressing universal access of voice telephony, the real need is now in access to the internet. Not only is internet penetration very low but there are other issues like affordability and computer literacy that make individual access difficult, so it is essential to have community internet access points within the transition to individual access. USAASA has had some initiatives in place to roll out community internet access points, but this has had limited success and impact. The USAOs given to licensees in the past have only focused on schools and internet access, and not community access points.
- 7.3. In terms of UA, it is important to roll out communal access to public payphones, community service telephones and public internet access points, but in terms of US, household penetration and cost of communications services are the important factors.

8. PENETRATION OF HOUSEHOLD COMMUNICATION MODALITIES

- 8.1. The table below illustrates the household penetration of communication services in SA by province.

	Cellphone	Telephone	Computer	Internet	Radio	Television
Eastern Cape	61%	11%	7%	3%	68%	51%
Free State	68%	13%	11%	4%	80%	65%
Gauteng	80%	24%	24%	12%	80%	75%
KwaZulu-Natal	72%	19%	12%	6%	76%	59%
Limpopo	70%	5%	7%	2%	73%	56%
Mpumalanga	77%	9%	11%	4%	78%	64%
North West	71%	8%	9%	3%	72%	61%
Northern Cape	62%	22%	13%	5%	74%	69%
Western Cape	74%	42%	30%	16%	83%	84%
Average SA	73%	19%	16%	7%	77%	66%

Source: Community Household Survey, 2007

- 8.2. As can be seen above, there is a great disparity between certain services and provinces. This information is obtainable right down to local municipality level, and is critical in providing an understanding of where the universal service gaps are. There is even a greater disparity for some electronic communication services between certain communities with the most underserved being in the rural and low income groups. This is due to a combination of legacy issues in terms of

infrastructure rollout of fixed line networks in the apartheid years, lack of mobile coverage in sparsely populated areas, as well as lack of affordability. Unless universal service obligations address all these factors, this disparity between different communities will continue to exist.

- 8.3. Another important issue is that technology-neutral obligations need to be considered as the practical distinction between fixed and mobile services for users is becoming irrelevant, at least for telephone services, as long as the quality and cost of the service remains the same. The average household cellphone penetration in 2007 was seventy three percent (73%) compared to the fixed line household penetration which was only nineteen percent (19%). Household voice communication penetration is high and approximately three hundred and seventy thousand (370,000) public or community payphones in the country augment these voice services fairly adequately. There are still, however, areas where there is a lack of individual or communal access to voice services, in other words, they are not available within a reasonable distance.
- 8.4. It is when we come to data services that the real need for US and UA is apparent. One of the main priorities of government is to improve access to the internet, and more particularly broadband. Household internet penetration and more specifically broadband penetration are very poor, and once again there is great disparity between the different communities. Individual access to the internet is very costly and although more and more individuals are able to access data and internet services over their cellular devices, internet access via the computer is not growing very rapidly and is unlikely to do so in the future. This is not only due to the income constraints, exacerbated by the costs of computers as well as of access itself, but also due to the fact that rural areas are very poorly serviced (very sparse existing infrastructure upon which new and improved networks can be built without having to start from scratch) due to legacy issues and the cost of rolling out infrastructure in these areas.
- 8.5. The average household internet penetration rate in SA was only seven percent (7%) in 2007, with Western Cape having the highest penetration at sixteen percent (16%) and Limpopo having the lowest penetration at two percent (2%). These vast disparities are primarily due to low affordability, but other aspects, such as lack of infrastructure (as in the rural areas) due to the cost and reduced demand for services, as well as a lack of knowledge and skills, also play a role.
- 8.6. Internet access is severely impacted by affordability, as well as by the size and type of settlement which a person lives in. There are severe access gaps in low income and rural households. This is not unique to South Africa, but is an international phenomenon.

8.7. Sixty three percent (63%) of all household broadband access is found in the metro areas, yet only thirty five percent (35%) of the population over sixteen (16) years of age lives there. Broadband penetration varies widely between urban and rural areas, with broadband penetration being six times greater in metro than in rural areas. In terms of broadband, there are also huge access gaps in rural and low income areas, which is similar to situations in other developing countries. Due to low affordability for low income users and the cost of providing internet access in rural areas, these communities will likely be underserved for a long time to come in terms of universal services, i.e. affordable coverage and access for individual users. In the short term, it appears inevitable that the best way to address these gaps is through communal access. These gaps confirm the need for community centres for broadband internet access for citizens, whether it be at (and could well include all of these) schools, libraries, post offices, municipal offices or community centres.

9. ANALYSIS OF BENCHMARKED COUNTRIES AND THE RELEVANCE FOR SA

INTRODUCTION

- 9.1. This is a summary of the international benchmarking exercise which takes into account approaches adopted in foreign jurisdiction as regard the implementation of USAOs. Detailed assessments were done of six benchmarking countries, namely Brazil, Chile, India, Malaysia, Poland, and Uganda.
- 9.2. In a very high level summary, the table below sets out the essential features of each country benchmarked against:

Chile: widely regarded as a good model for emerging economies; administrative costs very low; Government funding increased to expand broadband and deploy shared high capacity backbone network.
Brazil: the recognition of the critical role of backhaul and access as well as the shift of USO away from telecentres.
India: the valuable role of infrastructure sharing in achieving low costs to support US goals; Interventions of a Finance Ministry focused on maximising Government's revenues can conflict with broader perspectives on the best ways to achieve US/UA and maximise its benefits; Combination of operator-funded USAF and central government's control over disbursement of its funds is a bureaucratic nightmare; Low income consumers may be more willing to spend their own money on cable TV than telecom.
Malaysia: the heavy reliance on state-owned TM (e.g. new fibre optic broadband network) for implementing national policy continues despite its poor record regarding interconnection practices –necessary changes still to be proven (when charges and other conditions of access to new broadband backbone become clearer).
Poland: the progress of sole USO of incumbent is entangled in broader issues of market liberalisation; Promising trends are :(i) Recent wholesale agreement with TPSA; (ii) Broadband

emphasis; (iii) Amendments to Telecom Law in process.

Uganda: the first example in Africa of competitive tendering for US/UA projects (excluding the USALs in SA); the early inclusion of ICT support; More competition in fixed networks than many other countries; Impact of halting of NBI construction after Phase 1; as well as the recognition of critical role of affordable access to new high capacity national and international facilities in reaping benefits from broadband.

- 9.3. Amongst the benchmarked countries, the terms “universal service” and “universal access” are closely related concepts and are sometimes used interchangeably, although their meanings are different (particularly in the South African context). The information and assessments of US and UA initiatives in this report are focused on developing economies in Latin America, Asia and Africa, rather than on the experiences in the wealthy nations of North America and Western Europe as evident from the selected countries. The very different economic characteristics and relevant available infrastructure mean that US/UA practices and goals adopted in North America and Western Europe are much less likely to be suited to the South African situation.
- 9.4. Approaches and obligations imposed by countries to increase US and UA vary and so both US and UA initiatives are covered. These are the key reasons why obligations and funds are instituted and are intended to serve the fundamental objective of maximising public welfare.
- 9.5. The overview also identifies:
- 9.5.1. the shifts in scope and priorities for these US and UA programmes, since their original launch, that are justified by developments in network and terminal technologies,
 - 9.5.2. the growing role of the Internet and broadband access in enabling services that foster social and economic development,
 - 9.5.3. the adoption and pursuit of goals expressed in the two United Nations-sponsored conferences "World Summit on the Information Society" (WSIS) (reference 1),¹³ as well as
 - 9.5.4. a growing number of national expressions of intent such as the U.K.'s 2009 "Digital Britain" report.
- 9.6. This overview focuses on the lessons that are applicable to countries at comparable levels of development as South Africa, although it is recognized that this country confronts specific circumstances that arise because of the legacy of its past economic, political and social structures as well as their relationships.

¹³ See fn1.

UNIVERSAL SERVICE AND ACCESS IN TELECOMMUNICATIONS

- 9.7. US is traditionally aimed at increasing the number of individual residences with telecommunications services and providing telecommunications services to all households within a country, including those in rural, remote and high cost locations. US policies also focus on ensuring that the cost of telephone services remains affordable for individual users or for targeted groups of users (e.g. low-income families and people living in uneconomic areas).
- 9.8. In contrast UA policies work to increase access to telecommunications services on a shared basis, such as on a community or village-wide level. UA programmes typically promote the installation of public payphones or public call offices in rural areas, remote villages or low-income urban areas with the aim of providing a basic and initial connection to the public telecommunications network. They also include the installation of telecentres which include PCs and other equipment as well as telephones, and offer internet access, including more recently broadband. The challenges of launching and then maintaining telecentres for these purposes present a broader range of challenges than do public call offices. Telecentres typically require trained staff to assist users, especially at the outset, as well as resources to maintain and repair equipment if their functionality is not to fall off inexorably over time. However, they can potentially be used as an initial "seed" or "vanguard" in developing awareness of the value and skills in the use of ICT within an area that can then be extended out to successively more remote locations.
- 9.9. In the past, developing countries typically focused mostly on UA, meaning community and publicly shared access, as UA was the appropriate and most feasible target. However, since the maturation of mobile communications, which extended services further and lowered consumer access barriers, many developing countries may realistically target US for telephony, at least in urban areas. In addition to setting UA targets for rural areas, the objective of increasing individual rural penetration can also be pursued.
- 9.10. Some countries have reached the stage where they have achieved UA in telephony. Hence their goal is now to achieve US in telephony, while in the internet arena, especially broadband, their goal is UA. Thus, their policy is no longer solely focused on UA but on both UA and US.
- 9.11. Initiatives put in place to achieve goals specified under US and UA programmes include a mix of:
- 9.11.1. Obligations placed on licensees which they must fulfil or be penalised or even have their licenses withdrawn;

- 9.11.2. Public funding to support network investments from sources such as USFs, national budgets and external donations or loans (e.g. World bank, foreign aid and loans); and
- 9.11.3. Other public and public/private partnerships (PPP) efforts directed at improving and expanding access to and opportunities for education, health care and other public services via network-enabled applications and services.
- 9.12. The focus of US/UA programmes put in place or adapted now and for the next several years for low and medium income countries are likely, at this stage in their development and coverage of services and the availability and capabilities of technology, to include a mix of US and UA goals, with the latter covering broadband access in particular. The criterion adopted by the European Union that a service should only qualify for US or UA investments when it has achieved majority penetration through commercial or market forces, may be appropriate for wealthy countries, but may have to be rejected by other countries. In the case of developing economies, adherence to this criterion could frustrate their ability to meet the time tables embodied in the worthy and ambitious goals of social and economic development embodied in the Millennium Development Goals.
- 9.13. In addition, US/UA funding should pay attention to the need for improved infrastructure in other areas than network systems themselves, notably power, in order for network services to be available on a highly reliable basis in remote and rural areas. Evaluation of proposed projects should include assessment of the availability of power to ensure their continuous functioning, considering both network equipment and terminals. If adequate power is not available reliably from an electricity grid, investments in additional, and where feasible renewable energy sources such as solar energy, should be eligible for US/UA funding.
- 9.14. From the benchmarked countries, there have been views that US levies inevitably distort the market as they may be used to tax current consumers. It has also been argued that excessive subsidies are detrimental to competition and hamper market-based solutions to the challenges of network extension. These views have then led to the following considerations:
- 9.14.1. US levies should be collected and allocated carefully to minimise the damage they may cause as well as maximise the effects they produce.
- 9.14.2. The level of required contributions to USAFs and of other regulatory charges should be carefully assessed.
- 9.14.3. The effects of excessive contributions and charges of various kinds may in particular limit licensees' ability to reduce prices to expand affordability and penetration and/or usage of the licenced services, and may lead to low cash flows which hold back their further

expansion, especially in rural areas. It should be kept in mind that the value of covering rural areas is not confined to rural residents, businesses and communication between and amongst them. The entire economy and society benefit by enabling travellers from elsewhere to stay in touch when in rural locations, and by establishing connectivity across business, government and institutional locations and populations between as well as within rural and urban areas.

9.14.4. Instead of or in addition to industry-funded USFs, where politically and financially acceptable, the funding of US/UA programmes should come out of the national budget, as in Chile. This source of funding is justified and logical since, as just emphasised, the benefits of US/UA programmes accrue to the entire population, not just to those who participate directly.

9.15. It is important to bear in mind that some of the efforts to increase US/UA, notably USFs, inevitably place financial burdens on licensees. They involve costs that are borne ultimately by current customers of network services. Hence they can act to distort markets. This disadvantage should be weighed against the benefits of extending services to otherwise unserved or under-served residents and locations and the extent to which the same objectives can be reached by different means such as reducing other costs for commercial operators so they can extend their coverage without the need for direct public subsidies.

9.16. Principles adopted fully or partially by some countries and which may be considered include:

9.16.1. USAFs should have clear goals, targets, time lines and processes for both the collection and distribution of funds to ensure their transparency and the ability to measure and monitor of progress against commitments, with associated penalties for failure to meet and rewards for exceeding targets.

9.16.2. USAFs should be reviewed on a regular basis and should be revised upon the achievement of the original goals.

9.16.3. Funds collected by USAFs should be distributed in open and consultative processes involving industry stakeholders.

9.16.4. USAF allocation policy should be on a least-cost technology or least-subsidy basis that drives the highest population connectivity at the lowest cost (often mobile or other wireless-based communications).

9.16.5. USAFs should cover investments in infrastructure that can be shared among multiple players (such as towers and backhaul) to achieve greater efficiency of funds and in particular to promote accessibility to broadband services, which cannot be achieved unless high capacity

backhaul and backbone networks are in place, largely based on fibre optic links, as well as broadband access facilities. Sharing of infrastructure among multiple players (such as towers and backhaul) should seek to maximise the efficiency of use, ensuring that:

- 9.16.5.1. Clear and reasonable conditions of sharing and interconnection of this infrastructure to local access networks are established and enforced to derive maximum value from its deployment.
 - 9.16.5.2. Charges for the termination of traffic on local rural access networks are set or negotiated at a level which takes into account their potentially considerable impact upon the overall financial sustainability of rural operators.
- 9.17. Furthermore increases in broadband performance, coverage and affordability require a combination of appropriate access facilities, including wired and wireless to cover the ranges of topography and demographics encountered, with high capacity primarily fixed (but satellites can play complementary roles) backhaul and backbone networks. Shared fibre optic infrastructure should be included in eligibility for public sector support if it is inadequate and in all cases made available under transparently and fairly priced, non-discriminatory interconnection conditions. Economical access to adequate backhaul and backbone capacity will be a critical factor in ensuring that there is an efficient competitive environment for broadband markets whose dynamics cannot be controlled and inhibited by the legacy power of a single fixed incumbent.
- 9.18. Finally, in setting goals, it should be recognised that while US is a realistic policy objective in many wealthy economies, for practical planning purposes at this point, UA is a more practical goal in most developing countries, although in the long term this situation may and, it is to be hoped, will change.

SUMMARY

- 9.19. One of the outcomes of the research conducted is that many options that rely on USAFs are regarded as very unsatisfactory and poorly implemented. They have led either to large sums of money being unused or applied in an ineffectively technology-specific way (e.g. fixed telephony only), while at best so far they have only made minor contributions to meeting US/UA goals, in contrast (until now) to the large and rapid expansion of commercial mobile networks and affordable mobile services.
- 9.20. Another outcome is that the division of responsibilities in the South African context for US/UA initiatives between the sector regulator and a separate agency, USAASA, is unusual. In most cases

US/UA falls within the remits of the regulator and the Ministry. The United States of America is another exception in this regard, with the establishment of the Universal Service Administrative Company, a private, non-profit corporation that is responsible for providing every state and territory in the United States with access to affordable telecommunications services through the USF. However, this American example is not worthy of further consideration. The seemingly inexorable rise in the revenues it collects is a source of significant controversy and confusion for users, who see the USAF contributions on their bills, and it has manifestly continued in its present form and emphasis on rural telephony long past the time when it could be justified by need.

UNIVERSAL SERVICE AND ACCESS IN BROADCASTING

9.21. US/UA in the broadcasting context encompasses both (1) content (to cover the needs of all segments of the population in terms of culture, language, etc.) and (2) physical access to broadcast programmes. Hence one or more so-called public service broadcasters may be required to meet goals of providing content and programmes that satisfy the needs and desires of all segments of the population (by age, ethnicity, language, religion, etc.), while entities that transmit programming may be charged with obligations to provide universal transmission coverage and “must carry” requirements for some programming. The costs of these obligations may be financed by various means, ranging from the government budget, to the use of revenues from licence fees for use of TV sets, from spectrum licence fees, as well as from other sources such as donations and grants from public or private sector organisations. Of course with respect to subsidies for the production and delivery of specific types of content (as distinct from subsidies to build out transmission infrastructure) their amounts and foci are influenced by the strength of the traditions and commitments of the government and the society to the principles of free speech and expression and the tolerance of diverse, especially minority opinions. Some, if not many countries, are of course not known (or are well known for the opposite characteristic) for their tolerance or acceptance of the broadcasting of programmes that oppose or are said to be offensive to the ruling powers or majority opinions in a country, at least by the standards set by societies that have historically built up strong traditions of “free speech” and the right to dissent.

9.22. Comparisons between countries and especially similarities or instructive models for US/UA in the broadcasting arena are substantially harder to assess let alone justify than in the arena of telecommunications because of the lack/absence of a clear understanding of US/UA in the broadcasting context and the very different degrees of diversity within countries in relation to content issues (*ranging from the very homogeneous Japan to the kaleidoscope of India, with South*

Africa falling closer to the Indian example than the Japanese one). Hence it is probably more useful to consider the types and sources of subsidies that might be applied to ensure: (a) universal accessibility to broadcast programmes and (b) the support of programming that purely commercial interests might not create, that is designed to meet defined goals of diversity and comprehensiveness with respect to language, culture, programmes for minority populations or segments of the population, and other criteria.

9.23. In the case of South Africa, (b) above refers to the many languages and specific cultural traditions and interests which should be included within the total portfolio of programmes to which residents of the country should have access. In principle subsidies for either or both of (a) and (b) may be provided from:

9.23.1. (1) The central Government's budget;

9.23.2. (2) Donations from private or other public sources (domestic and/or foreign);

9.23.3. (3) Individual licence fees collected from TV viewers (the model of the BBC in the UK), as well as from

9.23.4. (4) Fees collected from broadcasting licensees in the form of spectrum licence fees or contributions to a USF or other agency (e.g. the MDDA in South Africa).

9.24. On the commercial front, revenues to support the funding of public service broadcasts can also be derived from advertising. However the scale of these revenues will inevitably be limited by the size of the audiences that programmes designed to satisfy the needs and desires of relatively small groups within the population may attract. Nevertheless the interest of advertisers in targeting these audiences, even if limited, will be maximised if complete coverage, i.e. UA to the programmes, is achieved, with the help of subsidies that extend broadcasting networks to reach all potential viewers in the country even those in areas where the costs on purely commercial criteria are otherwise prohibitive.

9.25. More broadly the European Commission has given specific indications of acceptable forms of public support for the digital switchover:

9.25.1. Funding for the rollout of a transmission network in areas where otherwise there would be insufficient TV coverage;

9.25.2. Financial compensation to public service broadcasters for the cost of broadcasting via all transmission platforms in order to reach the entire population, provided this forms part of the public service mandate;

9.25.3. Financial compensation to broadcasters which are required to discontinue analogue transmission before the expiry of their licences, provided this takes account of granted digital transmission capacity;

9.25.4. Subsidies to consumers for the purchase of digital decoders, i.e. digital/analogue converters, as long as they are technologically neutral, especially if they encourage the use of open standards for interactivity.

THE IMPACT OF TRANSITION TO DIGITAL BROADCASTING

9.26. A new factor has recently arisen in the context of US/UA for broadcasting as a consequence of the widely-planned and in a few cases already-implemented transition from analogue to digital terrestrial transmissions. Digital or digital-capable TV sets are required in order that programmes broadcast in digital formats (whether standard or high definition) can be viewed. Yet there is a huge installed base of analogue TV sets which cannot be replaced overnight and in many cases are owned by viewers for whom the cost of a new digital TV set is out of reach or very burdensome. So the question arises how to ensure that owners of analogue TV sets do not find themselves deprived of access to broadcast programmes when the digital transition takes place.

9.27. Digital to analogue (D/A) converters are a technical solution which enables the continued use of analogue TV sets, in the form of a box connected to the TV set or included in a cable set top box or satellite system through which the set receives programming. The question then arises how to minimise the cost of this conversion and whether and how its costs to individual users should be subsidised. In the US (where only a minority of viewers receive broadcast programmes over-the-air, so most analogue TV sets were able to receive digital broadcast programmes through their cable or satellite networks) a subsidy programme was implemented in which users were eligible to receive vouchers that covered most, if not all, of the costs of purchasing D/A converters.

TV LICENCE FEES

9.28. About 75% of countries in Europe and half of those in Asia and Africa impose a TV licence fee to help fund public broadcasting. There are many countries which have no TV licence fees. The following have never had a TV licence fee - Andorra, Canada, China, Estonia, Iran, Liechtenstein, Luxembourg, Monaco, and USA. Some countries have abolished TV licences after trying different approaches - Australia, Belgium (Flemish), Cyprus, Gibraltar, Hungary, India, Netherlands, New Zealand, and Portugal. Countries which do impose a TV licence fee generally have some exemptions (e.g. for seniors) and of course experience varying levels of compliance. Here are some examples:

Albania - €6.30 per household

Austria – Fees vary by state – Styria €284 to Upper Austria €223, radio €80

Belgium (Wallonia) - €149 for TV/per household €26.72 for a car radio but house radio is free

Bosnia - €36. Each household is charged along with the telephone bill.

Denmark - €288, called Media Licence Fee. This covers TVs, computers with internet access above 256 kbit/s or with TV tuners and mobile phones, which can receive broadcast TV. Radio only licence is €43.

Finland - €232, which will be reduced to €175 in 2010 according to the Danish model. TV licence fee inspectors knock on those people's doors that haven't paid, but you don't need to let them in if you don't want to.

France - €116. Added to the local tax bill to reduce collection costs. 30% of government owned France Television's revenues come from advertising.

Germany – €204 billed monthly in German precision but paid quarterly. The unemployed, disabled and those living solely on government support need not pay.

Ghana – Miniscule amount of 0.30 Euro cents billed per household.

Greece - €51, charged per electricity connection and paid with the electric bill.

Iceland – The most expensive TV licence fee in the world - €346.

Ireland - €160. Once you are over 70 or blind, you need not pay. Fines range from €635 for a first offence and €1,270 for a second.

Italy – Licence fee is €106 per household with TV sets or computers, mobile phones, video-intercoms, which can receive broadcast. The penalty for non-payment is only half of the licence fee plus the licence. Reportedly 40% of households, especially people living in the sunny south do not pay. This fee is the primary source of income for the public broadcaster RAI, which also receives revenue from advertisements.

Japan – Known in Japanese as reception fee- it is €110 for terrestrial and €165 for satellite reception. Over 1 million Japanese do not pay, as you need not let TV inspectors into your house. Office workers and students who commute get discounts. People in Okinawa, famous for the longest life expectancy in the world, also pay lower rates.

Mauritius - €30 and Pakistan - €3 both collect the fee with the electricity bill.

Norway - €270 and Sweden - €194 both collect fees per household and not per TV set.

Poland – €53 for TV and €17 for radio. Households need one TV licence per household but commercial premises one licence per TV set. 98% of businesses and 45% of households do not pay as TV inspectors may not inspect premises without permission from owners.

UK - A TV licence costs £145.50 from April 1st, 2010 (an increase of £3), or about €160. Fines for failure to pay can range up to £1,000. Residents over 75 years old are exempt.

10. SUMMARY OF INTERNATIONAL BENCHMARKED COUNTRIES

10.1. The table below summarizes the benchmarked countries on a variety of factors that are related to US and UA initiatives. A more comprehensive assessment is contained in the report referred to in the Introduction of this discussion document. The report provides a context for the selection criteria for each country and further contains a review of the South African Model and an assessment of compliance by the licensees up to March 2010. Only the summary provided below is included in this discussion document. The Authority strongly encourages interested persons to obtain and study the report for a more comprehensive understanding of the summary below.

Table 2	
Summary of US and UA initiatives in six benchmarked countries	
Attribute	Summary of six benchmarked countries
Basis of US and UA policy	There were a variety of options, some countries had USAOs attached to licences and others had contributions to a Universal Fund, or both of the two approaches. In some countries money from the fund went to a single provider, usually the incumbent and in other cases it was given out on a competitive tendering process. In the case of Chile, there were no obligations and no contributions to the fund, but use of government subsidisation and funds to further US and UA
Government bodies involved	Most countries involved the Minister responsible for electronic communications and had a Regulator. In Chile's case they have been very successful by including local authorities as well.
Original scope of US/UA initiatives	Initially it was mostly fixed telephony access and public payphones but in two cases telecentres were included.
Current scope of US/UA	Focus has moved away from public payphones to backhaul access, shared infrastructure for cellular and broadband access. In Uganda's case local content and coordination with other ICT programmes has been included.
Funding	All except Chile contribute to a USAF fund with Uganda having a combination of operators' gross revenues plus some government and foreign funding.
Operators' contributions	Operator contributions vary from 1% to 6% of operator revenues and sometimes co financing of projects as well.
Amount of funding accumulated	In quite a few instances the funding has been accumulating due to it not being disbursed. Main reasons are disputes, lack of allocation and inadequate management of funds.
Assignment of US/UA responsibility	In most cases the fixed incumbent was traditionally assigned the responsibility, but with the converging landscape the competitive bidder model is becoming more attractive.

Identification of eligibility for US/UA subsidies	Underserved, commercially unviable areas are mostly identified for eligibility of funds.
Licence obligations	A few countries still have licence rollout obligations, for rural areas or for specific projects but the majority now have conditions on winning bidders for projects.
Geographic focus	The primary geographic focus areas are rural and remote areas and municipalities who do not have broadband.
Population and other groups targeted	Rural, underserved, low income, disabled, schools, libraries, community centres, hospitals.
Complementary Government initiatives to US/UA, e.g. programmes for education, e-government etc., other funding of infrastructure	Programmes to ensure all children have access to education and health care; Multiple "digital inclusion" programmes at state and federal levels, e.g. GESAC; Network; Funding of transmission towers to cover poorly served areas; Cabinet-level Committee for broadband: Additional funding from European Union for ICT; Various e-government and e-commerce programmes at central and state government levels; Government subsidy of TM's new backbone High Speed Broadband
Compliance/ performance monitoring	Mostly the combination of the Regulator and local municipal office.
Penalties applied	Most have financial penalties and fines and even the ability of licenses being revoked
Support for public service broadcasting	Government funds to subsidise public broadcaster and licence fees, as well as funds for free to air broadcasters to cover uneconomic areas.
Outcomes and conclusions	
Results of UA and US initiatives	Chile has demonstrated success due to innovative strategies, leveraging of private investments, and efficient administration, but quite a few of the other countries have not achieved their goals, due to inefficient and ineffective use of USAF, disputes, as well a lack of coordination of USAOs and inefficient incumbents.
Problems encountered	Inadequate due diligence of proposed projects, not using USAF due to legal battles, basis of funds given to fixed line operators and incumbents or state owned operators, lack of efficient power grid, incompetence of regulators and corruption.
Other comments	Chile: widely regarded as a good model for emerging economies; administrative costs very low; Government funding increased to expand broadband and deploy shared high capacity backbone network. Brazil: the recognition of the critical role of backhaul and access as well as the shift of USO away from telecentres. India: the valuable role of infrastructure sharing in achieving low costs to support US goals; Interventions of a Finance Ministry focused on maximising Government's revenues can conflict with broader perspectives on the best ways to achieve US/UA and maximise its benefits; Combination of operator-funded USAF and central government's control over disbursement of its funds is a bureaucratic nightmare; Low income

<p>consumers may be more willing to spend their own money on cable TV than telecom.</p> <p>Malaysia: the heavy reliance on state-owned TM (e.g. new fibre optic broadband network) for implementing national policy continues despite its poor record regarding interconnection practices – necessary changes still to be proven (when charges and other conditions of access to new broadband backbone become clearer).</p> <p>Poland: the progress of sole USO of incumbent is entangled in broader issues of market liberalisation; Promising trends are :(i) Recent wholesale agreement with TPSA; (ii) Broadband emphasis; (iii) Amendments to Telecom Law in process.</p> <p>Uganda: the first example in Africa of competitive tendering for US/UA projects (excluding the USALs in SA); the early inclusion of ICT support; More competition in fixed networks than many other countries; Impact of halting of NBI construction after Phase 1; as well as the recognition of critical role of affordable access to new high capacity national and international facilities in reaping benefits from broadband.</p>
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11. COMPARISON OF BENCHMARKED COUNTRIES

11.1. The table below compares the benchmarked countries with each other on a variety of factors that are related to US and UA initiatives.

Country	Chile	Brazil	India	Malaysia	Poland	Uganda
Basic statistics						
Population, million	16.6 (mid-2009)	198.7 (mid-2009)	1,166 (mid-2009)	25.7 (mid-2009)	38.5 (mid-2009)	32.37 (mid-2009)
GDP, PPP, \$ billion	245.1 (2008)	1,998 (2008)	3,304 (2008)	385.2 (2008)	670.7 (2008)	40.08 (2008)
GDP, official exchange rate, \$billion	169.5 (2008)	1,573 (2008)	1,207 (2008)	221.6 (2008)	527.9 (2008)	14.57 (2008)
GDP/capita, PPP, \$	14900 (2008)	10200 (2008)	2900 (2008)	15200 (2008)	17400 (2008)	1300 (2008)
Area, sq.km	756102	8514877	3287263	329847	312685	241038
Telecommunications status						
Fixed Access Lines, millions; % population	3.550; 21% (mid-2009)	41.1; 21.3% (end-2008)	37.96; 3.26% (March, 2009)	4.31; 16.8% (Q3, 2009)	3.550 (mid-2009)	0.214, 0.66% (mid-2009)

Table 3
Country comparisons of findings and recommendations

Country	Chile	Brazil	India	Malaysia	Poland	Uganda
Cellular Subs, millions, % population	14.991; 88.08% (mid-2009)	150.6; 78.1% (end-2008)	391.76; 33.6% (March, 2009)	29.62; 104.1% (Q3,2009)	43.93; 115.2% (97.5%, excluding inactive subs.) - end 2008	9.465, 29.2% (mid-2009)
Cable TV Subs., million, % households	1.529; 31% (January, 2009)	4.09; 7.04% (mid-2009)	about 70 million, 36% (?) - very fragmented industry	None (satellite TV is only pay TV service, with 48% households)	4.7; 33% (end-2008)	N/A (available in Kampala)
Broadband Lines, million (fixed access), penetration	1.6; 9.7% population, 32.4% households (mid-2009);	11.40; 5.74% (end-2008)	6.81; 0.58% population, (August, 2009) – 14.39 million internet subscribers	1.483; 5.8% population, 27.0% households (Q3, 2009)	5.08, 13.2% population, 38% households (end-2008) – 48% households have an internet connection	0.338, 1.04% (mid-2009)
Mobile Broadband Subs., million	0.395 (mid-2009)	1.5 - estimated number mobile data cards (end-2008)	Still waiting for 3G spectrum auction (January, 2010)	0.748; (Q3,2009)	1.07 (end-2008 estimate)	0.310 (mid-2009)
Households with computer, %	34.4% (end-2006)	31.2% (2008)	N/A, but PC penetration per POP estimated at 2% (end-2008)	31.3% (2006)	54.7% (2007)	N/A - most internet usage is in internet cafes
Households with internet connection, %	31% (mid-2009) – effectively all broadband	23.8% (2008)	N/A, but in 2008 about 12% of urban population, and 1.2% of the larger rural population had the internet	15.2% (2006) – predominantly dial-up	33.5% (2008)	N/A - most internet usage is in internet cafes
Policies, organisation, and operation						
Basis of Policy	Universal Access policy, no US obligations (USO)	USOs in licenses of fixed incumbents; more recently obligations on 3G licensees	USO for state-owned fixed incumbent BSNL only	Originally USO on fixed incumbent TM, then competitive tendering (but still bias towards TM)	USO on designated undertaking(s)	Rural Communications Development Fund (RCDF) managed at arms' length by regulator UCC
Government bodies involved	Ministry, regulator SUBTEL, local authorities	Ministry, regulator Anatel	Ministry (DOT) and regulator (TRAI)	Ministry and regulator MCMC	Ministry and regulator UKE	UCC, Ministry of ICT

Table 3
Country comparisons of findings and recommendations

Country	Chile	Brazil	India	Malaysia	Poland	Uganda
Original scope of US/UA initiatives	Public payphones	Fixed telephones, telecentres	Fixed access network	Fixed rural telephony	Payphones and fixed telephones	Public payphones, internet cafes, Internet POPs, telecentres, ICT support
Current Scope of US/UA	Broadband access, backhaul	Broadband access, backhaul	Fixed and cellular telephones, broadband, infrastructure (including power sources)	Broadband access, backhaul, cellular coverage	Considering including broadband, if criteria of EU's US Directive are met; but broadband commitments included in recent wholesale services agreement between TPSA and UKE	Broadband access and more attention to local content and coordination with other ICT programmes
Funding for electronic communications	Government budget allocated to FDT	US Fund FUST established in 2001	Large US fund plus per-call Access Deficit Charge (ADC, now dropped)	Large US Fund	US Fund	1% of operators' gross revenues plus some Government and foreign funding
Amount of funding	Cumulative spend: 1994-2000 -CLP 10B 2000-2006 - CLP 7 B 2006-2009 - CLP 49B (CLP 1B ~ \$2 million, end-2009)	US fund FUST had accumulated R\$7.2 billion at end-2008 (about \$4 billion), and collected R\$ 1.4 billion during the year (\$780 million)	US fund accumulated \$3.9 billion by March, 2009; only about 30% of collected funds had been disbursed; also substantial ADC payments	Cumulatively US fund contributions reached \$1.34 billion, but only \$89 million disbursed (as of end-2008)	Claims by fixed incumbent for US reimbursement are still in dispute	UCC's RCDF-II plan expects to require some \$17 million per year
Operators' contributions	Own investment in US/UA projects	1% adjusted gross revenues to FUST; plus contributions to 2 other Govt. funds : FUNTTEL (technology development to support local industry) and FISTEL for support of inspection activities, also funded by pay TV	5% of revenues to USO Fund (+ sums to ADC until 3/2008)	6% "weighted" revenues to US Fund	Up to 1% of revenues to US payments	1% of gross revenues and expected co-financing of projects

Table 3 Country comparisons of findings and recommendations						
Country	Chile	Brazil	India	Malaysia	Poland	Uganda
		companies				
Assignment of US/UA Responsibility	Winning bidders – minimum subsidy required	USOs on fixed incumbents and more recently 3G licensees	Originally USO on fixed incumbent BSNL; then auctions for US projects – conditions and environment in practice biased towards BSNL	Only fixed incumbent TM through 2000, then competitive bids – but bulk still to TM	Fixed incumbent TPSA is sole US operator until May 2011	Competitive bidding
Identification of eligibility for US/UA subsidies	Identification of commercially unviable areas	Anatel sets the rules for the locations and populations to be covered	Unserviced villages identified in censuses of 1991 and 2001	Underserved areas identified by regulator on basis of fixed telephone penetration; more recently criteria for and number of such areas expanded	UKE identifies areas on the basis of demand maps (“white spots”)	Identification of areas that will not be served commercially within the next few years
License obligations	Conditions on winning bidders of UA projects	Yes, see Basis of policy above	BSO/UASL operators have rural roll-out obligations	Conditions on winning bidders for projects	Yes, see Basis of policy above	Conditions on winning bidders of projects
Allocation of Spectrum	Technology-neutral approach	Obligations on 3G spectrum license winners	UASL licenses bundled with 4.4MHz of start-up 2G spectrum, with additional 1.8MHz on meeting subs. target (this bundling may change); proposals to reduce spectrum fees for rural coverage	Some projects based on wireless technology	No	Technology-neutral approach has been adopted
Geographic focus	Rural and remote areas	Telephone service to remote areas; now municipalities	Rural and remote areas	Phased extension from most to least densely populated	Rural areas	Rural areas

**Table 3
Country comparisons of findings and recommendations**

Country	Chile	Brazil	India	Malaysia	Poland	Uganda
		without broadband access		areas		
Population and other groups targeted	Disabled; Businesses of economic importance within UA areas	Low income groups, disabled, schools, hospitals, libraries	Rural populations	"Underserved" groups such as low income and handicapped	Low income, disabled	Low income and other social exclusion factors such as disability
Complementary Government initiatives to US/UA, e.g. programs for education, e-government etc., other funding of infrastructure	Programmes to ensure all children have access to education and health care	Multiple "digital inclusion" programs at state and federal levels, e.g. GESAC	Various e-government and e-commerce programmes at central and state government levels	Government subsidy of TM's new backbone High Speed Broadband Network; Funding of transmission towers to cover poorly served areas; Cabinet-level Committee for broadband	Additional funding from European Union for ICT	National backbone project, funded with Chinese Exim loan (\$106 million); National ICT Policy
Compliance/ Performance Monitoring	Regulator with inputs from local authorities	Anatel	Local offices of DoT monitor license compliance and verify claims for funding	Reviews by regulator (several local offices)	Regulator UKE	UCC is responsible for monitoring compliance
Penalties Applied	Financial penalties up to 3x subsidy (but lower in practice)	Anatel has the power to impose fines for failures to meet USOs(PGMU) and has done so on some occasions	Financial penalties for failures to meet roll-out obligations	US licenses revoked and resubmitted for bids	Fines on TPSA for failure to meet service standards	Penalties for phones installed but not working
Broadcasting						
	Chile provides funds from the Government budget to deploy broadcast networks in	The Brazilian license fee (applied only to broadcasters) is charged for any	In India the TV licensing system was withdrawn in 1077, with both the Indian national public broadcasters, AIR and	Malaysia abolished its TV licence in 1999	In Poland advertising on public TV channels is not permitted and funding is only available via the TV	Uganda the TV license fee has been withdrawn but its reinstatement to fund public broadcasting is apparently still an open question.

Table 3 Country comparisons of findings and recommendations						
Country	Chile	Brazil	India	Malaysia	Poland	Uganda
	underserved areas	transmitter station, no matter the technology and the kind of data involved. The fee, that varies from R\$1.34 to R\$1,703.00, is used to fund the Empresa Brasil de Comunicação - EBC.	Doordarshan instead funded by both the Government of India and advertisements.		licence fee	
Support for Public Service Broadcasting	Government funds available via CNTV for free-to-air broadcasters to cover uneconomic areas	Direct Government subsidies for public broadcasting service	Public Broadcasting Fund (analogous to USOF) proposed by TRAI in 2009	Government subsidy of public service broadcaster; Unclear if or what subsidies will be available for digital transition scheduled for 2015 completion	TV license fees support public service broadcaster	Broadcasting Act includes US/UA obligation on public service broadcaster, but funding not evident and TVs not affordable for many residents (receiver license fee removed)
Outcomes and conclusions						
Results	Near complete access to telephone service; high leverage of private investments; efficient administrative processes	Efficient use of USAF largely frustrated; some successes in providing basic connectivity to previously unserved locations; Market liberalization, not UA/US has delivered most results	USAF very ineffective; some success in providing basic connectivity to previously unserved location; mobile competition has delivered most results, not UA/US	Broadband penetration targets largely unmet; Inefficient use of USAF until now	Limited impact so far - broadband penetration low by EU standards; high telephone penetration thanks to non-US mobile	Near complete UA for telephony, thanks to combination of commercial mobile and US/UA investments; RCDF Phase II includes broadband

Table 3
Country comparisons of findings and recommendations

Country	Chile	Brazil	India	Malaysia	Poland	Uganda
Market Distortion Effects	Not significant	US fund contributions increase mobile operators' costs and tax current customers	US fund contributions increase mobile operators' costs and tax current customers; ADC (now dropped) created "grey market" for calls; state ownership of fixed incumbent distorts US funding in its favour	US fund contributions increase mobile operators' costs and tax current customers; state ownership of fixed incumbent distorts US funding in its favour	US disputes have contributed to legal battles delaying effective market liberalisation	None significant with RCDF itself; Some concerns about NBI
Problems Encountered	Inadequate due diligence of some proposed projects	Very little disbursement of funds collected thanks to ongoing legal issues of interpretation of use of FUST and FISTEL	Limited disbursement of US funds and bias towards fixed facilities; inadequate availability of reliable grid power	Very little disbursement of US funds to date; bias towards state-owned TM; major shortfall to meet broadband goals	Ongoing legal disputes about claims for US disbursements based on TPSA's cost calculations	Allegations of incompetence and corruption in NBI project
Other Comments	Chile widely regarded as a good model for emerging economies; administrative costs very low Govt. funding increased to expand broadband and deploy shared high capacity network Source: BMI-T, 2010backbone network	Recognition of critical role of backhaul as well as access ; shift of USO away from telecentres	Valuable role of infrastructure sharing in achieving low costs to support US goals; Interventions of a Finance Ministry focused on maximizing Government's revenues can conflict with broader perspectives on the best ways to achieve US/UA and maximize its benefits; Combination of operator-funded USAF and central government's control	Heavy reliance on state-owned TM (e.g. new fiber optic broadband network) for implementing national policy continues despite its poor record regarding interconnection practices – necessary changes still to be proven (when charges and other conditions of access to new broadband	Progress of sole USO of incumbent is entangled in broader issues of market liberalisation; Promising trends are: (I) Recent wholesale agreement with TPSA; (ii) Broadband emphasis; (III) Amendments to Telecom Law in process	Uganda is first example in Africa of competitive tendering for US/UA projects; Early inclusion of ICT support; More competition in fixed networks than many other countries; Impact of halting of NBI construction after Phase 1; Recognition of critical role of affordable access to new high capacity national & international facilities in reaping benefits from broadband

Country	Chile	Brazil	India	Malaysia	Poland	Uganda
			over disbursement of its funds is a bureaucratic nightmare; Low income consumers may be more willing to spend their own money on cable TV than on telecoms	backbone become clearer)		

12. REVIEW OF USAOS UNDER THE TELECOMMUNICATIONS ACT AND THE ECA

12.1. The table below summarizes the comparison between approaches under the Telecommunications Act and under the ECA.

Topic	Telecommunications Act	ECA	Comments
Who sets policy on USA?	Generally in relation to policy on telecommunications matters, the Minister had the power to issue policy directions in terms of section 5(4) (a), which ICASA was required to perform its functions in accordance with section 5(4) (d). Specifically on USA policy, in terms of section 59(3) (e), the Minister had powers to develop policy on any matter relating to universal access or universal service. Further, the Minister had powers to make a determination of what constitutes universal service and universal access in terms of section 59(2) (a).	Section 3(1) makes it very clear that the Minister sets policy on US/UA, develops guidelines for the determination by ICASA of incentives that may apply to licensees who make binding commitments to construct electronic communications networks in under-served areas and rural areas. However, unlike under the Telecommunications Act, ICASA is required to consider the policies, and not to act in accordance with them.	Note that, whilst under-served area is defined under the ECA, the word rural is not defined. Note that, in terms of section 88(2), the Authority is required to define under-served areas.
Who implements	Generally, ICASA had powers to impose USAOs	In terms of section 8(1), ICASA is required to	Note that the language used in relation to

**Table 4
Comparative overview of USAOs in the Telecommunications Act and the ECA**

Topic	Telecommunications Act	ECA	Comments
policy (who imposes USAOs)?	on non-major licences. In respect of major licences (PSTS, Mobile cellular and multimedia), ICASA was required in terms of section 35(1)(a) to propose USAOs to the Minister who had a final say over same. ICASA had powers in terms of sections 30A(1)(b) and (2)(c), and 30B(1)(b) and (2)(c) to impose USAOs on access to 1800 MHz and 3rd Generation spectrum, respectively.	develop standard terms and conditions for various licence categories. In terms of section 8(2)(g), such standard terms and conditions “may take into account” any USAOs.	<p>USAOs in terms of the ECA, is that standard terms and conditions may take into account USAOs, which is different from saying may impose USAOs. It presupposes that such USAOs exist and ICASA needs not impose new USAOs.</p> <p>Note further that, in terms of section 5(6) ICASA may not license individual electronic communications network services, except pursuant to a policy direction by the Minister. It is not clear whether such policy direction will extend to USAOs for such ECNS licences.</p>
Who carries USAOs?	In terms of section 34(5), any telecommunications service licence was to be issued on conditions appropriate to the licence and consistent with the objects of the Telecommunications Act. The Telecommunications Act did not give any guidance on the categories of licences that must carry USAOs, nor did it attempt to prescribe an exhaustive list of categories of licences which must carry USAOs. In terms of sections 36(2), it was clear that PSTS had to be subject to USAOs. Beyond this, the Minister or ICASA, as the case may be, had to make a call on whether USAOs were appropriate for a particular type of a licence. In practice USAOs were imposed on major licences such as mobile cellular and multimedia services and not on non-major licences such as VANS and PTNs. Note however that in terms of section 48(1)(a), which dealt with amendment of telecommunications	In terms of section 8(4), ICASA is empowered to designate licensees to whom USAOs shall be applicable. The Act does not provide any guidance as to the factors that ICASA must take into account in making such designation.	<p>Note that, although the Act does not provide such factors, the fact that not every service licensee is eligible to a subsidy and incentive (tendering) from USAF in terms of sections 88(1) and 90(1) of the ECA, respectively (e.g. ECS licensees) may play a role in informing ICASA which licensees are targeted by the Act. Otherwise, it may be unfair to have licensees equally carrying USAOs, but not all being eligible to subsidies.</p>

Table 4 Comparative overview of USAOs in the Telecommunications Act and the ECA			
Topic	Telecommunications Act	ECA	Comments
	services licences, only a PSTS licence could be amended in relation to USA and on the basis of changed circumstances or of the definition of US/UA. It was not clear whether the exclusion of other categories of licences from this basis of licence amendment was as a result of an oversight or by design, which would have suggested that the Telecommunications Act envisaged that only PSTS could carry USAOs.		
If more than one, what are the criteria for selection?	As the Telecommunications Act never dealt with who had to carry the USAOs, it followed therefore that there could not have been any procedure prescribed for selecting categories of licences who had to carry USAOs. These seemed to be determined either by the Minister and or ICASA, and then discussed with operators and finally published in their licences	The Act does not prescribe the criteria that ICASA has to use in making the designation of who must carry the USAOs.	Note that, as ICASA is required to consider policies on electronic communications by the Minister, the selection of licensees who shall carry the USAOs shall be informed by such policies, to the extent they deal with same.
Is spectrum licence subject to USAOs?	Although in terms of the general scheme and purpose of the Act, it apparently was not envisaged that spectrum (other than 1800 MHz and 3rd generation) would carry USAOs, strictly speaking, ICASA could impose USAOs on spectrum licence in terms of section 30(1)(c). With regards to 1800 and 3G, ICASA was empowered in terms of sections 30A and 30B, respectively, to issue such licences subject to such conditions as it may specify/prescribe, which included USAOs.	It does not seem to be the intention of the legislature that spectrum licences should carry USAOs. ICASA's power to make the designation on who should carry USAOs is limited to service licensees only and the sections of the ECA dealing with spectrum licences do not expressly have similar provisions relating to designation of who should carry USAOs. Further, in terms of section 10(1)(g), ICASA is authorised to amend service licensees for the purposes of imposing USAOs, and similar provisions are not found in relation to spectrum.	Note that, although the spectrum licensees (1800 MHz and 3rd generation) carried USAOs in terms of the Telecommunications Act, they were, unlike Telkom, not expressly included in the category of operators who were eligible in such capacity to receive subsidies payable from the USF to operators who carried USAOs, which is still the position under the ECA.
Does the Act prescribe nature of services to be provided in relation to USA?	In terms of section 36(2) (being the only place where the Telecommunications Act prescribed the category of licence that had to carry USAOs), Telkom and any other holder of a PSTS licence were required to extend/roll out their PSTS to	In terms section 8(4), ICASA can designate any service licensee (ECS, ECNS and BS) to carry USAOs. Therefore, ICASA has powers to determine which kinds of services must be the subject of US/UA.	

**Table 4
Comparative overview of USAOs in the Telecommunications Act and the ECA**

Topic	Telecommunications Act	ECA	Comments
	<p>areas or communities which are not served by telecommunications services. Thus there was no obligation on the PSTS licensees to roll out any other telecommunications service outside PSTS such as VANS (access to the internet).</p>		
<p>Does the Act prescribe technologies to be used?</p>	<p>The Telecommunications Act was silent on this. However, it could be argued that under the Telecommunications Act, Telkom could not use, for example, mobile technologies (other than fixed-mobile) to provide the PSTS as it was only authorised to extend its PSTS.</p>	<p>It follows from the fact that any service licence could be the subject of USAOs that the Act therefore does not prescribe the type of technologies that could be used.</p>	
<p>Does the Act prescribe the type of USAOs that have to be imposed?</p>	<p>The Telecommunications Act did not prescribe the kind of obligations that were applicable. However, section 59(3)(f) did give an indication that some of those obligations shall take a form of community service obligations.</p>	<p>No. As pointed out above, note however that the wording of section 8(2)(g), namely, "standard terms and conditions must take into account any universal service and universal access obligations", is problematic in that it may be interpreted to mean that no more new or further USAOs can be imposed, thereby leading to a conclusion that only the existing obligations will be applicable.</p>	
<p>Are the conditions the same or similar for all licensees under one licence category?</p>	<p>The Act did not directly deal with this issue. However, in terms of section 48(1)(c), a licence could be amended in order to make the conditions of the licence consistent with conditions being imposed generally in respect of all licences issued in the same category, for the purposes of ensuring fair competition between licensees in that category.</p> <p>This, in our view, suggested that the USAOs did not necessarily have to be the same for every licensee in a particular category. This is so for two reasons, firstly, what is required is conditions "generally" applicable, which</p>	<p>In terms of section 9(6), ICASA may grant a licence on standard terms and conditions applicable to that type of a licence, and may impose additional terms and conditions which are prescribed by regulation from time to time. In terms of section 9(7), ICASA may impose specific terms and conditions resulting from undertakings made by the applicant. It is therefore clear that licensees in the same category must be subject to the same terms and conditions except where a licensee made individual undertakings in addition to the standard terms and conditions.</p>	<p>Note however, that in terms of section 67(4) read with (7), different licence terms and conditions may be imposed for fair competition purposes.</p>

Table 4 Comparative overview of USAOs in the Telecommunications Act and the ECA			
Topic	Telecommunications Act	ECA	Comments
	suggested that conditions specific/peculiar to a particular licensee's circumstances, could still be imposed, in addition to those of general application. Secondly, fair competition does not necessarily entail same conditions, it may in fact dictate that the licensees be subject to different conditions.		
Can the USAOs be adjusted, either during the term of the licence or upon renewal?	In terms of sections 48(1)(a) and (c), discussed above, yes.	In terms of section 10(1)(g), ICASA may amend an individual licence if the amendment relates to universal service and universal obligation and is necessary as a result of changed circumstances or as a result of lack of electronic communications network services, broadcasting services, or electronic communications services in specifically identified areas of the Republic.	Note the following:- 1) whilst in terms of section 8(4) of the ECA, USAOs may strictly speaking be imposed on any service licensee including class licenses, the section empowers ICASA to amend "individual licenses" only for purposes of US/UA; 2) the ECA adopts a different language or terminology in this section. It refers to "lack of" those services. ICASA would want operators to cover areas not adequately covered in terms of ECS or ECNS, but licensees may object to the proposed amendment on the basis that in a particular area, there is no lack of those services; 3) the Act is inconsistent in the use of terminologies. Reference is made to "in specifically identified areas of the Republic", and not under-served areas, which is a term used in other parts of the Act; 4) whilst ICASA had the power to impose the USAOs which were imposed in terms of the

**Table 4
Comparative overview of USAOs in the Telecommunications Act and the ECA**

Topic	Telecommunications Act	ECA	Comments
			Telecommunications Act, in some cases, those conditions which were not fulfilled at the time of conversion, were not carried into the newly converted licences. It has been argued that, for example, if an operator had an obligation to roll out 50 CSTs and at the time of conversion only managed to roll out 20, the newly imposed obligation is limited to maintaining such 20, and no longer has an obligation to roll out the remaining 30.
Incentives for compliance	In terms of section 66(1), funds in the USF could be used to provide subsidies, inter alia, to Telkom and any other PSTS licensee carrying USAOs to extend its PSTS to areas not covered by telecommunications services or to any other service provider including those carrying USAOs, for establishment of telecentres or multipurpose community centres, or for the provisions of multimedia services.	The position is the same as under the Telecommunications Act. Subsidies may be granted to BS and ECNS licensees in terms of section 88(1)(b) and USAASA may provide incentives to ECNS to construct electronic communications networks in under-served areas through project grants in terms of section 90(1).	
Penalties for non-compliance	In terms of section 100(3)(d), repeated non-compliance with licence conditions may lead to revocation of a licence. In terms of section 101(d), if a licensee fails to comply with ICASA's order relating to the licensee's non-compliance including paying a fine, such failure constituted an offence, for which a fine not exceeding R500 000 and/or an imprisonment of not more than two years, could be imposed.	In terms of section 74(1), any person that fails to comply with licence conditions is guilty of an offence and is liable upon conviction to the penalties set out in subsection (2). However, note that the said subsection (2) does not set out the penalties. In terms of the USAF Regulations, 2008, late payments of contributions to the USAF are hit with default interest. The Regulations do not deal with failure to pay.	Note that ICASA has powers to prescribe offences and penalties for non-compliance with USAOs in developing standard terms and conditions.
Who provides funding?	In terms of section 67(1) all telecommunications service licensees were required to make an annual contribution into the USF.	The position is the same as under the Telecommunications Act – every service licensee is required to contribute.	Note however, that not every service licensee is eligible to a subsidy from the USAF, irrespective of whether such licensee carries USAOs or not. This is so because

Table 4 Comparative overview of USAOs in the Telecommunications Act and the ECA			
Topic	Telecommunications Act	ECA	Comments
			there is a closed list of beneficiaries to whom the subsidies may be paid. For example, ECS licensees are not included.
How contributions are made	In terms of section 67(2), not more than 0.5% of the licensees' respective annual turnovers could be contributed. ICASA was required to prescribe the exact percentage, which it set at 0.2% of the annual turnover.	In terms of section 89(2), contributions may not exceed 1% of the annual turnover or such other percentage as may be determined by the Minister and ICASA is required to set the said percentage. In terms of Regulation 3(1) of the USAF Regulations, 2008, ICASA has prescribed the percentage of 0.2% of the annual turnover. Broadcasting service licensees who make contributions to the MDDA are entitled to set-off such contributions against the contributions to the USAF in terms of section 89(3).	ICASA has prescribed the percentage that was applicable under the Telecommunications Act to be 0.2% of turnover.
Who administers and controls the funds?	The funds were administered by the USA, subject to the control and instructions of the Minister. Thus the USA was an administrator and the Minister was the one who decided how the funds should be distributed / utilised.	The position is the same as under the Telecommunications Act.	Note that the ECA now states that the board of USAASA, which administers the funds, exercise powers conferred and performs functions imposed by the Minister through policy directions, something which not only further subject the board to the authority of the Minister in administering the funds, but also affects the independence of the board.
Who benefits from the funds?	In terms of section 66(1), funds from the USF could be utilised exclusively for payment of subsidies to needy persons in respect of access to telecommunications services; to Telkom to extend its PSTS to areas not served or adequately served by telecommunication services; to public schools for access to the internet at the E-rate; for the establishment of telecentres and/or multipurpose community centres; for the establishment of public information terminals; for payments to USALS	The Act in section 88(1) adopted the same approach as under the Telecommunications Act of having a closed list of persons who may benefit from the funds and of, in respect of each category of beneficiary, prescribing the purpose for which the funds may be used. The first category under subsection (1)(a) is needy persons towards the use of broadcasting and electronic communications services. Note that	It is a closed list of beneficiaries and it is paid for specific purposes. Note that, although 1800 MHz and 3rd generation spectrum licensees carried USAOs under the Telecommunications Act, they did not and still do not qualify for these subsidies in that capacity. Note that, whilst section 88(1) states that the funds will be used exclusively for the

**Table 4
Comparative overview of USAOs in the Telecommunications Act and the ECA**

Topic	Telecommunications Act	ECA	Comments
	<p>for infrastructure roll-out; and for provision of multimedia services</p>	<p>reference is not made to access to electronic communications networks.</p> <p>The second category is broadcasting service licensees and ECNS licensees for the purpose of financing the construction or extension of electronic communications networks in underserved areas. Note that ECS licensees are excluded. Further note that the funds must be used for the purpose of constructing or extending electronic communications networks. Thus this subsidy is for the roll-out of communications infrastructure. This is problematic as broadcasting service licensees are not per se authorised to construct electronic communications networks unless they hold a separate ECNS licence.</p> <p>The third category is public schools and public further education and training institutions for the procurement of broadcasting and electronic communications services and access to electronic communications networks. Note that the purpose includes access to electronic communications networks. Further note that it is no longer limited to access to internet services but extends to all forms of communications services.</p> <p>The fourth category is schools and further education and training institutions (who meet certain specified criteria) for the procurement of broadcasting and electronic communications services and access to electronic communications networks. Note that this is a new category</p>	<p>payment of subsidies for the specific purposes mentioned therein, section 90(4) states that the project grants to be awarded in terms of section 90(1) must be paid from the USAF, thereby begging the question whether the tenders are for the subsidies under section 88(1) and, if so, whether the tenders are limited to situations covered in section 88(1) only. The relationship between these two sections is not clear. If we assume that section 88(1) prescribes the exclusive purposes for which funds in the USAF can be used, that would mean that the section 90 tendering is limited to the section 88(1) purposes, which in turn would mean that subsidies may not be granted without tendering. If we assume that section 90 tendering does not relate to subsidies under section 88(1) but to project grants to "ECNS" only (this being the only category that can be given project grants in terms thereof), then that would follow that there is a contradiction between the two sections or that the use of the words "exclusive" under section 88(1) is misleading as there are other purposes for which the funds may be used.</p> <p>Note further that, other than with regard to the first category (needy persons), there is no criteria set on how the subsidies may be obtained / applied for.</p>

Table 4
Comparative overview of USAOs in the Telecommunications Act and the ECA

Topic	Telecommunications Act	ECA	Comments
		<p>extending to independent (private) schools that are registered with SARS as public benefit organisations. Note further that schools falling under this fourth category need to be recognised by the provincial DoE as falling into the lowest three quintiles for socio economic redress. We believe that the distinguishing feature between this category of public school and the one under category three will be in the amount of subsidies allocated to them.</p> <p>The fifth category relates to subsidies “for the establishment and operation of broadcasting services and for the establishment and operation, including training of and the payment of allowances to personnel of centres where access can be obtained to electronic communications networks. Note that ECS is excluded (reference is made to access to electronic communications networks). It is not clear why such centres should be those aimed at ensuring access to electronic communications networks and why access to electronic communications services is excluded. Finally note that the telecentres need not necessarily be established in underserved areas.</p> <p>Note that, USALS are no longer specifically mentioned, but they will be accommodated under the second category. However, that will entail that they will qualify for the same amount of subsidy as other licensees falling under that category, although their circumstances differ.</p>	
What is the split of the funds among	In terms of section 66(2), the Minister was required to develop a formula for the	Similar provisions have not been carried over into the ECA. Therefore it appears that USAASA will	

**Table 4
Comparative overview of USAOs in the Telecommunications Act and the ECA**

Topic	Telecommunications Act	ECA	Comments
various categories of beneficiaries / purposes?	apportionment of funds among the beneficiaries set out in section 66(1). Thus a beneficiary could only get a subsidy up to the percentage allocated for it in terms of the Minister's formula.	decide on the formula for allocating funds among those purposes including those set out in section 90 (project grants), on the instructions of the Minister.	
Lifespan of USAASA	In terms of section 64, the USA could be disbanded after five years of the coming into operation of the Telecommunications Act, by the State President by notice in the Government Gazette. Upon such disbandment, ICASA was to take over its functions.	The provisions that limited the life span of USAASA have not been carried over into the ECA. Therefore, USAASA is no longer a short term/project institution, but will exist on a permanent basis.	
Definitions of universal service and universal access	US and UA were defined as universal access to telecommunications services and universal provision of telecommunications services as determined from time to time by the Minister in terms of section 59(2)(a), on the recommendations of the USA.	The Act basically contains the same definition as under the Telecommunications Act.	Note that the definition of US includes universal provision of broadcasting services. Note that the definitions of US/UA were gazetted in February 2010.
Definition of under-serviced area	The Act did not contain a definition of under-serviced area and, strictly speaking, never made use of this concept directly. Reference was made to "under-serviced area licence" in section 40A (USALS). When it dealt with under-serviced area outside USALS, the Act used a different phrase, namely areas not served or adequately served by telecommunications services. For example, Telkom was required to extend its PSTS to areas not covered or adequately covered by telecommunication services in terms of section 36(2). Within the context of USALS, section 40A basically provided that an under serviced area is where there is a teledensity of less than 5%. Note that defining under-serviced area by reference to teledensity was used in relation to USALS only. In relation to "areas not covered or not adequately covered", the Act did not give	In terms of section 88(2), ICASA is required to define under-serviced areas, which definition it is required to review and update at least bi-annually in terms of section 88(3).	Note that, whilst USAASA defines what constitutes US/UA through recommendations to the Minister in terms of section 82(3)(a), ICASA defines what constitutes underserved areas. It is not clear why these two functions sit in two different institutions. The definition of what constitutes US and UA has to be informed by the socio-economic circumstances prevailing at a particular time including levels of access to telecommunications services (teledensity) in various parts of the country. Thus USAASA may not execute its functions of defining US/UA without reliance on the definitions by ICASA of what constitutes underserved areas. Currently, USAASA has come up with definitions of, inter alia, underserved areas and have made recommendations to ICASA.

Table 4 Comparative overview of USAOs in the Telecommunications Act and the ECA			
Topic	Telecommunications Act	ECA	Comments
	guidance on how this should be determined.		ICASA has not formally adopted them as yet.
Other definitions	In terms of section 66(1), subsidies could be paid to “needy persons”. The Act did not define what this meant nor did it give any guidance on how this could be determined. The Minister was only required in terms of section 66(4) to determine categories of needy persons. It is arguable that for the Minister to do such determination, the Minister would have had to define what a needy person is.	The position remains the same under the ECA with regard to the definition of needy people. Further, whilst the Act makes reference to underserved areas and rural areas under section 3(1)(e) and other sections, it does not require that rural areas be defined.	Note that USAASA has now included a definition of needy persons in its position paper. This is still to be adopted by the Minister. Note. Rural areas are not defined.
Was/is the focus on universal service or universal access or both?	The Act made reference to these two concepts in a very inconsistent manner, in one sections making reference to both and in other sections making reference to only US, thereby creating an uncertainty as to whether it intended to prioritise US above UA. For example, Telkom was required to extend its PSTS in order to achieve US (this was despite the fact that its PSTS included public pay-telephones), in terms of section 59(3)(g), the USA was required to continually evaluate the effectiveness of the Act towards achievement of US, the USA’s annual report was required to include information on the progress regarding achievement of US and in terms of section 67A, the Agency could award UA projects and provide subsidies for UA projects.	Although the inconsistency that existed under the Telecommunications Act has been dealt with, there is still a section that reflects this problem, namely, section 86(2)(a) which requires the annual report of USAASA to include information relating to progress towards US.	The exclusion of UA from section 86(2)(a) may be an oversight incurred on the part of the drafters when they were trying to clear the inconsistencies, as it is the same language that was used in the Telecommunications Act.
Was/is affordability a consideration in developing the policies?	In terms of section 2(a), one of the objects of the Act was to promote universal and affordable provision of telecommunications services.	The ECA sets out in section 2(m) as one of its objective, the provision of a variety of quality electronic communications services at reasonable prices, and omitted reference to affordable services. It must be noted that the two concepts differ, with a determination of what is reasonable requiring assessment of all surrounding	By making use of “reasonable” prices and no longer “affordable” provision, there is clearly an intention on the part of the legislature in terms of the standard/level and/or nature of obligations to be imposed on the operators. The focus seems to have shifted from looking at the consumer only to also looking

Table 4
Comparative overview of USAOs in the Telecommunications Act and the ECA

Topic	Telecommunications Act	ECA	Comments
		<p>circumstances including from the supplier's perspective, whilst a determination of affordability requires assessment of circumstances of the buyer.</p>	<p>at the operator's side. However, that does not necessarily mean that the ECA no longer encourages affordable provision of communications services. The ECA has some provisions the main purpose of which are to ensure that services are provided at affordable prices, such as the regulation of fees (price control) where there is ineffective competition in a particular market and the establishment of the E-rate system.</p>
E-rate	<p>In terms of section 45(3), public schools and public further education and training institutions were entitled to 50% discount on all calls to an internet service provider and on any connection or similar fees levied by an internet service provider for accessing the internet or receiving or sending any signals via the internet, from a date determined by the Minister..</p>	<p>The ECA kept the E-rate in terms of section 73. Further, implementation of the E-rate will be in accordance with regulations prescribed by ICASA for that purpose.</p> <p>In terms of section 73(3), where the internet service provider obtains facilities from an ECNS licensee for the provision of the internet services, it shall be entitled to a minimum of 50% discount on the purchase of such facilities. Note that the E-rate is fixed at 50% but the internet service provider can obtain a minimum of 50% discount on facilities.</p> <p>The other new development under the ECA is that independent (private) schools can also now qualify for the E-rate if they fall under categories declared by the Minister as eligible for such discount.</p>	<p>Note that, unlike subsidies from the USAF which relate to all electronic communications services, the E-rate is confined to internet services. Note however that the schools may obtain subsidies in relation internet services (thus can pay the discounted amount from the subsidy).</p> <p>Note further that with regard to private / independent schools, the Act seems to envisage different criteria for E-rate and for subsidies from USAF. Whilst the criterion is spelt out for the subsidies, the one for the E-rate is left to the Minister to determine.</p>

13. SUMMARY OF COMPLIANCE WITH EXISTING OBLIGATIONS

- 13.1. The summary below contains findings from a compliance review conducted in respect of the relevant licensees. The review commenced with a thorough analysis of the actual licences to extract a comprehensive set of current and previous USAOs and to assess compliance therewith as captured in a separate report. The assessment was followed by the administration of a questionnaire that was sent to a sample set of licensees relating to their compliance with their USAOs and responses were requested on specific questions in the questionnaire. Some licensees provided detailed responses whilst others provided short answers not backed up by any supporting documentation.
- 13.2. The sample set of licensees included the following licensees:
- 13.2.1. Telkom
 - 13.2.2. Vodacom
 - 13.2.3. MTN
 - 13.2.4. Cell C
 - 13.2.5. Sentech
 - 13.2.6. iBurst, and
 - 13.2.7. Neotel
- 13.3. Telkom, Neotel, Cell C, MTN, Vodacom, iBurst and Sentech all had obligations under their previous licences. Telkom had obligations under the PSTS licence, but none with regard to spectrum licences. (former)VANS and broadcasters did not have USAO but broadcasters did have general obligations, including language, local content and general programming obligations.
- 13.4. Generally, there has been very minimal compliance with the USAOs. It is a common course that Telkom did not comply with its obligations in full and penalties were imposed. With regards to CSTs, all the three mobile operators exceeded their roll out targets. With regards to sim-cards and handsets, none of the mobile operators have rolled out. With regards to roll out of internet-connectivity/access and

terminal equipment to public schools, the licensees have had some roll-out, although not generally fully compliant and not within the prescribed time periods. With regards to internet connectivity/access and terminal equipment to rural clinics/hospitals as well as to IPWDs, there has generally been no compliance.

- 13.5. Most, if not all licensees, cite problems relating to the development of the USAOs and to the implementation and co-ordinations thereof as major reasons for non-compliance. These issues range from legislative/regulatory issues such as lack of definition of key concepts such as rural areas to implementation issues such as unresearched allocation of obligations and lack of allocation of roles and responsibilities for the implementation of the USAOs.
- 13.6. The tables below summarise each licensee's obligations and their level of compliance, taking into account their response to the questionnaire administered by the Authority.

Telkom

Table 5
Telkom

Description of USAO	Compliance	Reason for non-compliance / Comment
<p>Telkom had a network rollout obligation of 2,690,000 in respect of the total number of new access lines over a 5 year period comprising of 1,676,000 lines in respect of under serviced areas, and 3,304 in respect of Village targets. Telkom had a further obligation to roll out 20,264 lines in respect of Priority Customers, 120,000 in respect of public payphones and 1,252,000 replacement lines.</p>	<p>Telkom failed to meet its total line target by 16,448 lines, and rollout all of its total line and village line target and its village target by 505 lines. Telkom was penalised and paid a penalty of R10,183,285 for failure to meet these targets.</p>	<p>Telkom did not rollout in its last year of exclusivity on the basis that it was not economical to do so.</p>
<p>Telkom had a waiting list service target of 600 per 1,000 fault rate in respect to residential lines in 1997/1998 which would be reduced to 399 per 1,000 by 2001/2002. With respect to business lines the service target was 580 to 370 in the same period as with the residential lines. Further waiting list targets in respect of public payphones.</p>	<p>Telkom failed to comply with the fault rate per 1,000 lines for residential customers. For this failure, Telkom paid a further penalty of R383,199.</p>	<p>In its report, Telkom cites, "factors beyond reasonable management control" as the cause for non-compliance.</p>

Source: Telkom, 2010

Vodacom

Table 6
Vodacom

Description of USAO	Compliance	Reason for non-compliance / Comment
For network rollout obligations, Vodacom was required to cover 60% of the population within 2 years (31/5/1996) and 70% of the population within 4 years (31 May 1998).	Vodacom did not deal with this obligation in its response.	
Required to roll out 22,000 CSTs in underserved areas and community centres situated in underserved areas within 5 years of licence (by 31 May 1999)	Vodacom indicated that it has rolled out 115,713 CSTs which are active.	
Provision of 2.5million sim cards in underserved or unserved areas identified by ICASA within 5 years of issue of spectrum licence	Vodacom was silent on whether this was complied with.	This obligation has not been complied with. Vodacom believes that this obligation has now lapsed as it has not been carried over into its ECNS licence.
Provision of 125,000 terminal equipments (handsets) within 5 years of issue of spectrum licence in accordance with implementation plan approved by ICASA	Vodacom was silent on whether this was complied with.	This obligation has not been complied with. Vodacom believes that this obligation has now lapsed as it has not been carried over into its ECNS licence.
Provision of internet access to 140 IPWDs within 3 years of issue of spectrum licence	Vodacom was silent on whether this was complied with.	This obligation has not been complied with. Vodacom believes that this obligation has now lapsed as it has not been carried over into its ECNS licence.
Provision of internet access to 5,000 public schools within 8 years of issue of spectrum licence	Vodacom indicated that the licence required it to provide 625 but the Authority imposed 713 in the first year. It provided 706 schools, with a shortfall of 7 schools.	Vodacom stated that it could not fully comply with this because some schools did not have electricity and other schools were covered by other operators. Vodacom cites a number of reasons that generally contributed

Table 6 Vodacom		
		towards its failure to comply fully with its obligations in general. These include lack of adequate training and exposure to computer usage at the schools, no funding for schools to cover running expenses, the support structures that Vodacom put in place (such as infrastructure maintenance) did not work, some schools already had internet connectivity, some schools were allocated outside its coverage area, ICASA failed to provide a list of schools in certain instances, ICASA failed to approve implementation plans on time, some schools were closed down, some did not have electricity, some did not have the requisite facility to house the computers and some teachers did not attend computer training.
Provision of 1400 terminal equipment (e.g PCs) to IPWDs and public schools	Vodacom was silent on whether this was complied with.	This obligation has not been complied with. Vodacom believes that this obligation has now lapsed as it has not been carried over into its ECNS licence.

Source: Vodacom, 2010

MTN

Table 7 MTN		
Description of USAO	Compliance	Reason for non-compliance / Comment
For network rollout obligations, MTN was required to cover 60% of the population within 2 years (31/5/1996) and 70% of the population within 4 years (31 May 1998).	MTN did not deal with this obligation in its response.	

**Table 7
MTN**

<p>Required to roll out 7,500 CSTs in underserved areas and community centres situated in underserved areas within 5 years of licence (by 31 May 1999)</p>	<p>MTN indicated that it has rolled out 20,000 CSTs.</p>	
<p>Provision of 2.5million sim cards in underserved or unserved areas identified by ICASA within 5 years of issue of spectrum licence</p>	<p>Did not comply</p>	<p>MTN stated that it submitted an implementation plan to ICASA in accordance with the distribution framework document developed by the DoC, and requires the list of beneficiaries (government departments), which the DoC has not yet provided.</p> <p>MTN also states that it requires beneficiaries to provide their personal details (names, ID and address) in terms of RICA.</p>
<p>Provision of 125,000 terminal equipments (handsets) within 5 years of issue of spectrum licence in accordance with implementation plan approved by ICASA</p>	<p>Did not comply</p>	<p>MTN stated that it submitted an implementation plan to ICASA in accordance with the distribution framework document developed by the DoC and requires the list of beneficiaries (government departments), which the DoC has not provided yet.</p>
<p>Provision of internet access to 140 IPWDs within 3 years of issue of spectrum licence</p>	<p>Did not comply</p>	<p>MTN requires ICASA to provide a list of IPWDs.</p>
<p>Provision of internet access to 5,000 public schools within 8 years of issue of spectrum licence</p>	<p>Not fully compliant</p> <p>MTN indicated that it has covered 486 schools.</p>	<p>MTN stated that it has not been provided with names of any further schools and therefore has not been able to roll out to further schools.</p>

Table 7 MTN		
Provision of 1,400 terminal equipment (e.g PCs) to IPWDs and public schools	Not complied with	MTN requires ICASA to provide a list of IPWDs. The response is silent about the rollout of equipment to public schools.
General		MTN has previously raised a number of problems associated with the obligations relating to access to spectrum (1800 MHz and 3G). In its view, the problems included: MTN wanted the Department of Education (DoE) to give them a list of schools which required internet access (note that the obligation to develop the implementation plan lies with MTN); DoE failed to co-ordinate this process which resulted in delays in finalising implementation plan of MTN; the Department of Health (DoH) got involved at a later stage and therefore Implementation Plan could not be completed. Basically because departments could not submit allocations, then Implementation plans could not be finalised and therefore MTN could not start implementing its obligations.

Source: MTN, 2010

Cell C Table 8 Cell C		
Description of USAO	Compliance	Reason for non-compliance / Comment
For network rollout obligations, Cell C was required to cover 65% of South Africa and 40% of the total population within 2 years of Commercial Date, to cover 8% of South Africa and 60% of the total population within 5 years.	Cell C did not deal with this obligation in its response.	

Cell C required to roll out 52,000 CSTs within 7 years of licence (by 31 May 1999)	Cell C has rolled out a significantly higher amount of Cell C. Up until the recent out of court settlement with MTN, there was a dispute on whether the CSTs rolled out were compliant with the regulatory framework.	
Provision of 2.5 million sim cards in underserved or unserved areas identified by ICASA within 5 years of issue of spectrum licence	Did not comply	Cell C states that it did not comply because there was no proper consultation between the DoC and the Authority, there was no impact assessment before the allocation of the obligations and as a result, it was impractical to implement. It states that it is in the process of amending its implementation plan.
Provision of 125,000 terminal equipments (handsets) within 5 years of issue of spectrum licence in accordance with implementation plan approved by ICASA	Did not comply	Same reasons as for rollout of sim cards.
Provision of internet access to 140 IPWDs within 3 years of issue of spectrum licence	Cell C was silent on whether this was complied with.	This obligation has not been complied with. Cell C stated that it has submitted its rollout implementation reports to ICASA.
Provision of internet access to 5,000 public schools within 8 years of issue of spectrum licence	It appears that Cell C has not yet rolled out public Schools.	Cell C stated that there were numerous challenges in implementing the school rollout, least of which was a change in approach by ICASA in the allocation of schools, agreed upon with the DoE. Cell C also states that no impact assessment study was conducted prior to the allocation of the school rollout obligation.
Provision of 1,400 terminal equipment (e.g. PCs) to IPWDs and public schools	Cell C was silent on whether this was complied with.	This obligation has not been complied with. It stated that it has submitted its rollout implementation reports to ICASA.

Source: Cell C, 2010

Neotel

Table 9
Neotel

Description of USAO	Compliance	Reason for non-compliance / Comment
For network rollout obligations, Neotel was required to cover 50% of population in the specified municipal areas within 5 years (8 February 2011) and 80% of population within 10 years (8 February 2016).	Neotel did not deal with this obligation in its response	
To provide internet connectivity to 2,500 public schools	<p>Not fully compliant</p> <p>Neotel stated that it rolled out to 2 public schools, 50 FETs, and 20 schools.</p> <p>It should be noted that the FETs and private schools were rolled out to pursuant to a commercial agreement (tender) and not within the context of the implementation plan.</p>	<p>Neotel cites non-allocation of schools by ICASA as the reason for non-compliance. It states that unlike other operators, it has not been allocated even a single school. ICASA in a letter dated 28/11/07, indicated that the allocation will be done by DoE. Neotel mentioned other challenges, including lack of hardware and associated development and maintenance support, the internet connectivity programme seems to have not taken into account the other government initiatives such as Gauteng Online and Khanya project (which have reduced the number of schools not covered), the "no-fee schools" are unable to pay for the services, the collapse of the working group which was meant to co-ordinate allocation of schools, lack of support infrastructure such as terminals (PCs), thin client terminals, laptops, computer laboratories to house and secure terminals, the reduction of number of schools by DoE through mergers.</p>

**Table 9
Neotel**

<p>To provide internet connectivity to 2,500 rural public clinics and rural public hospitals (Note that rural public hospitals were not in the old PSTS licence)</p>	<p>Not complied with</p>	<p>In the approval of the rollout plan for the schools, ICASA deferred the rollout to rural public clinics and public hospitals pending the establishment of the working group on public clinics and further consultation with the DoH. Neotel identified some implementation challenges on the rollout to rural public clinics including that there are no rural public clinics falling within its coverage area, there has been no allocation of rural clinics agreed with Neotel and that that DoH wants internet connectivity to be provided free of charge.</p>
<p>General</p>		<p>Neotel has raised a number of challenges that it has faced in the development of its implementation plan. These included, firstly, that the number of public schools not covered by other operators is less than the 2,500 that it has to cover, secondly, the public schools lack basic infrastructure such as power, PC and buildings, thirdly, there are only 3,050 public clinics nationwide, of which 1,000 are rural and therefore less than its target of 2,500 (rural public hospitals were included in the ECNS following this complaint), fourthly, all of the 1,000 rural public clinics do not fall within its coverage areas. Neotel then requested a reduction in the number of public schools and rural public clinics and substitution thereof with CSTs, Thusong Centres, internet cafes and internet connectivity at public libraries. The Authority has decided to continue with the review prior to considering any formal amendments and revised approaches.</p>

Source: Neotel, 2010

Sentech

Table 10
Sentech

Description of USAO	Compliance	Reason for non-compliance / Comment
<p>To roll out internet access at the E-rate to 1,500 rural public schools over a period of 9 years</p> <p>(Note: Sentech indicated its multimedia services licence was amended to remove other obligations. We were not provided with a copy of this licence.)</p>	<p>Not fully compliant</p> <p>Sentech indicated that it has provided internet connectivity to schools in Gauteng under the Gauteng Online Project and has submitted the rollout reports to the Authority which has not yet confirmed whether such schools are covered under the 1,500 target. It states that it therefore does not know whether it is compliant or not.</p>	<p>Sentech refers to a number of challenges that it has encountered in trying to implement the obligations, which include that its multimedia licence has not been converted yet and that it is not clear whether it still carries the obligations; it was initially given obligations that had nothing to do with their core business of signal distribution including provision of furniture, workstations, secure computer laboratories and refurbishment and upgrading of buildings; the obligations are thumb-suck because the costs associated therewith have not been scientifically determined by the Authority; lack of infrastructure at the schools such as electricity; in some areas, schools preferred other operators who provided connectivity free of charge; lack of communication and information dissemination by DoE to schools and lack of feedback from the Authority on its reports including on whether it has complied with its obligations or not.</p>

Source: Sentech, 2010

iBurst

Table 11
iBurst

Description of USAO	Compliance	Reason for non-compliance / Comment
<p>To provide internet access to no less than 1,000 rural and urban public schools by 2011 (within 7 years) – (200 within 2 years, 700 within 5 years and 1,000 within 7 years)</p>	<p>Not fully compliant</p> <p>iBurst provided a list of 180 schools it has rolled out to. The list has one private (independent) school that has been covered.</p> <p>In its response, iBurst indicated that it has an obligation to provide to “clinics in poorer areas” as well. This is not covered in its licence and the context thereof was not as clear.</p>	<p>iBurst’s response does not provide any reasons for non-compliance. However, it does indicate that there were shortcomings, but without providing any details thereof.</p>

14. WAY FORWARD: REVISED MODELS

- 14.1. Based on the review conducted and taking into account licensees' experiences, coupled with the outcomes of the international benchmarking exercise, the models below are to be considered for the way forward in entrenching a USA regime that is concerned with the realization of these objectives. One of the options is to retain the current model with a few necessary adjustments to improve compliance. Some of the options are purely based on aligning our regulatory dispensation to international best practice in order to enjoy the benefits of the lessons already learn by the jurisdictions canvassed in the benchmarking. However, the Authority has not taken a position on what the best model will be and would like to source industry and public opinion on how to best move toward ensuring that US and UA become a reality for all and sundry.
- 14.2. Once again, the Authority would like to reiterate that a more comprehensive report is available in its library and would also like to repeat the call for interested persons to obtain a copy thereof to enable a more meaningful engagement on the matter.

Various options that were considered for the USAO framework			
Model	Description of model	International examples	Tick most suitable model
Recommended option			

Various options that were considered for the USAO framework			
Model	Description of model	International examples	Tick most suitable model
<p>Model 1</p> <p>'Pay and Play are co-ordinated, with participation in the competitive tendering process broadened</p>	<p>Licensees carry USAOs and contribute into USAF. ICASA reserves the right to still impose USAOs on licensees and at this stage licensees have to continue to pay the same percentage towards the USAF. No existing USAO license obligations are carried over as none of them are efficiently or effectively implementable in their current form. At this stage only existing obligations that have already been implemented have to be maintained and ICASA reserves the right to impose new appropriate USAOs in the future. The ECA needs to be amended to rectify the existing problems including those relating to the subsidy and competitive tendering process and to allow for all licensees (not only existing ECNS licensees) as well as other qualified contenders (companies that can fulfil the requirements of a license if they win the bid and are awarded a license) to also be able to participate in the competitive tendering process for US and UA projects. All USAOs are coordinated through a single US and UA strategy with cooperation between ICASA and USAASA with legislative changes that allow USAASA to co-ordinate, managed and monitored al USAOs</p>	<p>Brazil (see country report) comes close to this model in that USAOs have been changed over time. A similar scenario however exists as in SA in that the use of its USAF, one of the largest and most underutilised, remains controversial and unsatisfactory</p>	
Other models considered- no major changes in policy direction and the ECA			
<p>Model 2</p> <p>(2nd best option)</p>	<p>Licensees have no USAOs attached to their licenses but and have to pay towards the USAF. All licensees can choose whether to participate in the competitive tendering process, whether they pay towards the fund</p>	<p>Uganda (see country report) comes close to this option, however the USF is administered by the regulator (albeit at arms'</p>	

Various options that were considered for the USAO framework			
Model	Description of model	International examples	Tick most suitable model
'Pay and/or No Play' and more inclusive competitive tendering	or nor, (and not only ECNS licensees). This opportunity can also be open to all qualified contenders (able to operate a network and get a license if they are successful). USAASA manages and administers the fund and ICASA has no further involvement in the USAF	length) and not by a separate organization such as the RSA's USAASA. Uganda's US/UA programmes are regarded as a relatively successful case in Africa	
Model 3 (3rd best option) 'Pay and No Play'	Licensees no longer have USAOs attached to their licenses and have to pay towards the USAF. USAASA manages and administers the fund and the US and UA projects and ICASA has no further involvement in determining, and monitoring compliance of USAOs.	The difference between Options 3 and 2 appears to lie in whether the process for gaining access to USF resources is only open to current licensees (Option 3) or is expanded (Option 2). Uganda is again a country whose US/UA model is most relevant to this option.	
Model 4 'Pay or Play'	ICASA reserves the right to still impose USAOs on licensees but costs incurred by licensees towards their USAOs are offset against the amount they have to pay towards the USAF. It is recommended that new obligations are derived in line with the pending US and UA strategy commissioned by USAASA. This is a very difficult model to manage and administer and this means that there will have to be very close co-operation between ICASA and USAASA to administer this option	Malaysia (see country report) comes closest to this option, and in its case the role of and preference shown towards the state-owned incumbent TM are still notably unsatisfactory aspects.	
Note: There may be combinations or variations of the above models but for the purpose of this report we will use these options as illustrative rather than including all possible variations.			

15. US/UA MODEL RELATED ISSUES

The questions that follow below are premised on the discussion above and the model that commentators would have chosen as their preferred model, taking into account the current legislative and policy background as applicable at the date of publication of this discussion document.

15.1. Legislative and Regulatory Issues

- 15.1.1. Must licensees continue to carry USAOs? (in answering these questions you are requested to comment on whether broadcasters must carry such obligations)
- 15.1.2. If so:-
- 15.1.2.1. which factors/considerations must be taken into account in determining whether a particular licensee or category of licence must carry USAOs or not?
- 15.1.2.2. which licensees (electronic communications network service ("ECNS"), electronic communications service ("ECS") and / or Broadcasting Licensees ("BS")) must carry the USAOs, taking into account the answer to 12.2.2.2). **You are requested to provide reasons for your answers;**
- 15.1.2.3. should all licensees or some continue to carry USAOs (ECNS, ECS and BS) or which, if not all, must carry USAOs? Please indicate what the role of licensees no longer carrying USAOs) should be towards the goal of achieving US/UA. **You are requested to provide reasons for your answers;**
- 15.1.2.4. Do you submit that licensees falling within the same category of a licence, must carry the same obligations, including similarity in terms of nature and quantity? You are requested to refer to experiences encountered in the implementation of the existing obligations, if any.
- 15.1.3. What approach should be carried in respect of USAOs obligations imposed under the Telecommunications Act which were not carried over into the converted licences issued under the ECA? You are also

requested to consider what should happen to such obligations which were not carried over into the converted licence.

15.1.4. what kind of obligations must be imposed on the licensees that you submit need to carry USAOs? You are requested to refer to experiences in implementing the existing obligations, if any, that you think must be taken into account in determining obligations that individual licensees or licences have to carry. You are requested to deal with BS licensees separately in your answer;

15.1.5. Would you submit that there is currently a clear or sufficient link between USAOs and the processes undertaken by USAASA and the MDDA in terms of the ECA? You are requested to provide full details in your answer.

15.1.5.1. If not so what would you submit has to be done to improve the harmonization of those processes towards the achievement of the goal of USAOs?

15.1.6. What should happen to the obligations which were not completed or implemented at the time of the conclusion of the licence conversion or were not carried over into the converted licences and those that were carried-over into the converted licences, where applicable, and new ones which were imposed upon conversion of the licence, where applicable)?

15.1.6.1. Would you submit that licensees should carry an obligation to maintain the obligations that have already been implemented? Please provide reasons for your answer.

15.1.7. Must licensees continue to make a contribution into the USAF?

15.1.7.1. If so taking into account your answers above on whether licensees should carry or not carry USAOs, would you submit that the existing amount of contribution is or would be sufficient?

15.1.7.2. If not so from which sources do you think the USAF should be funded?

- 15.1.7.3. If you submit licensees should not continue to carry USAOs, what would you submit the role of licensees should be towards contribution to the goal of US/UA?
- 15.1.7.4. If you submit that licensees should continue to carry USAOs, would you submit that such obligations must be adjusted up in view of the relief from contribution into the USAF?
- 15.1.8. which concepts or terms used in the ECA that have a bearing on USAOs and/or the USAF must be defined or amended? You are requested to refer to difficulties encountered in implementing or interpreting such terms and/or concepts, if any.
- 15.1.9. which method has to be used in defining or amending such terms and/or concepts, including whether in the ECA itself, by ICASA, USAASA or any other relevant body?
- 15.2. **Implementation Issues**
- 15.2.1. Would you submit that the current USAOs' implementation system needs to be maintained (in the absence of a move towards a new model)? In this regard, you are requested to express your views also on the initial processes for the development and determination of the USAOs and the processes for the co-ordination and actual rollout of the USAOs.
- 15.2.2. If so are there any areas that need improvement in the:-
- 15.2.2.1. determination of USAOs? Please provide full details.
- 15.2.2.2. coordination of USAOs? Please provide full details.
- 15.2.2.3. monitoring and evaluation of USAOs? Please provide full details.
- 15.2.3. If not so please identify the shortcomings and/or problems associated with the current system.
- 15.2.4. As stated in the ECA, should only the ECNS licensees be eligible for the competitive tendering process for US and UA projects?

15.2.4.1. If yes, state why

15.2.4.2. If no:-

- (a) should any other licensees who carry USAOs also be considered?
- (b) should this be broadened to include other non-licensed qualified contenders as a way of opening up the market further?

15.3. Policy Issues

15.3.1. As regards the recommended model, can it be implemented under the existing provisions of the ECA?

15.3.1.1. If so, please provide full details.

15.3.1.2. If not so, please indicate whether a legislative amendment would be required and identify provisions of the ECA that need to be amended and/or new provisions that need to be introduced.

15.3.2. What should be the focus areas of USAOs in terms of infrastructure and services?

15.4. General

Interested persons are requested to provide any information or raise any issues not covered above, that they submit are relevant and need to be taken into account for the purposes of this enquiry.
