A REPORT
PREPARED FOR THE UNIVERSAL SERVICE AGENCY

RECOMMENDATIONS ON HOW THE USA AND OTHER STAKEHOLDERS MIGHT ASSIST USALS TO ENSURE SUSTAINABILITY

By
Lisa Thornton Inc
(subcontracting BMI TechKnowledge Group and Mukwevho Mkhabela Adekeye Inc)

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EXECUTIVE SUMMARY

Introduction

In January 2006, the Universal Service Agency (USA) engaged Lisa Thornton Inc (LTI) to conduct a review (but not an audit) of the USALs. LTI subcontracted BMI TechKnowledge Group (BM-TI) and Mukwevho Mkhabela Adekeye Inc (MMA). Together, LTI, BMI-T and MMA will be referred to herein as the LTI project team.

The LTI project team was engaged to produce this report setting out recommendations on how the USA and other stakeholders, such as the Department of Communications (DOC) and the Independent Communications Authority of South Africa (Icasa) might assist the USALs to ensure sustainability. The report also includes recommendations for the USALs themselves and in particular in respect of their business cases. The report also includes a section indicating how the Electronic Communications Act (ECA) might affect the sustainability of USALs.

Attached to this document are the following.

- Signed questionnaires completed by each of the USALs (excluding Karabo Telecoms)
- Individual reports in respect of each of the USALs, covering the LTI project team's factual observations
- A detailed summary of suggestions made by the USALs
- A detailed summary of suggestions made by other stakeholders / interested parties

Summary of Conclusions and Recommended Interventions

In all engagements with the USALs, the depth of commitment and dedication amongst USAL members struck us. The LTI project team, however, has concluded that without significant intervention by the Minister of Communications (Minister), Icasa, the USA, the USALs themselves and other stakeholders, most if not all of the USALs will not survive.

The LTI project team also concluded, based on a review of the government's policy, that the survival of the USALs is important. The programme has the potential to –

- enhance the quality of life in underserviced areas,
- stimulate business activity in underserviced areas, and
- achieve broad based empowerment of the people in underserviced areas.

It is in this context that the LTI project team makes recommendations for three critical interventions necessary, namely, in respect of the USF subsidies, spectrum and interconnection, as well as a number of recommendations that will support the critical interventions in helping ensure the sustainability of the USALs.

USF Subsidies

In respect of the USF subsidies, the LTI project team recommends that the total subsidy allocation (per USAL) be increased substantially from the current R15 million, and that operating expenditure and capital expenditure be availed and administered separately. This continued funding should apply, however, only to those USALs that demonstrate that the initial award of R5 million has been used (or retained) for legitimate USAL business, inclusive of operating expenditure.

Spectrum

The LTI project team recommends that Icasa make the necessary 800 MHz and WiMax spectrum available to USALs, immediately or very soon thereafter.

Interconnection

The LTI project team supports Icasa's current initiative to apply a cost based interconnection regime to MCTS and PSTS licensees alike.

Supporting Environment

In hindsight, the LTI project team can see that the USALs would be far more advanced in their progress if they had enjoyed the benefits of an aggressive program of enablement. This

could have been achieved in a number of areas, including regulatory and operational interventions. Significantly, virtually all the USALs have acknowledged that they need help in the different departments of their operations (eg, legal, regulatory, finance, taxation, tariffing, interconnection, marketing, and sales and distribution).

For this reason, the LTI project team has recommended that the USA ensure the creation of a USAL advice centre to address various issues of competency through the provision of training, advice and assistance. The LTI team has suggested a number of other interventions that would be helpful. The team for example, recommends that the DOC facilitate with Sars that the USF subsidies be tax exempt. The team recommends that Icasa make certain amendments to regulations and licence conditions, including amendments removing ownership and control restrictions that inhibit the accessing of funding.

1 INTRODUCTORY MATTERS

1.1 POLICY CONTEXT OF USALS

The 1996 White Paper on Telecommunications Policy (published in Government Gazette 16995 dated 13 March 1996) (White Paper) that preceded the Telecommunications Act, 1996, recognized that Telkom might not succeed in providing telecommunication services to the least profitable areas during its exclusivity period. It also recognized that simply opening that market segment to competition also might not result in universal service in underserviced areas. Therefore, it was provided that SMMEs (small, medium and micro-enterprises) and cooperative organisations would be allowed and encouraged to provide telecommunication services in those areas using new and innovative technologies. (See paras 2.18 and 2.19 of the White Paper.)

Then, in August 2001, the Minister issued Policy Directions intending to promote the managed liberalisation of the telecommunications market. Policy Directions are directions issued by the Minster to the Independent Communications Authority of South Africa (Icasa) in terms of section 5 of the Telecommunications Act. In the Policy Directions, in respect of market structure, the Minister indicated, amongst other things, that SMMEs would be permitted to provide telecommunication services for the specific purpose of advancing universal access in geographic areas with a teledensity of up to five percent. The Minster went on to direct that SMMEs must be permitted to provide services using their own or leased infrastructure, and a standard interconnection regime applicable to all SMMEs must be developed by Icasa.

Section 40A of the Telecommunications Act, regarding USALs specifically, was inserted into by the Telecommunications Amendment Act, 2001 after the publication of the Minster's Policy Directions. Section 40A(1) provides that the Minister must determine those

geographic areas where teledensity is less than five percent. Teledensity is defined as 'the number of telephone lines per 100 persons'.

The Minister published her determination in terms of section 40A in late 2001/early 2002 for 27 underserviced areas (in Government Gazette 29954 dated 18 December 2001, amended by Government Gazette 23164 dated 21 February 2002). The Minister's determination took account only of fixed lines (public switched telecommunication services (PSTS)) and did not take account of penetration rates of mobile cellular telecommunication services (MCTS).

Section 40A(2)(b) provides that in considering applications for USAL licenses, due consideration must be given to applications by from persons from historically disadvantaged groups and from applicants managed and controlled or owned by women.

What is clear from the policy and legislation is that the objectives of the licensing of USALs were twofold -

- To enhance universal access in the most underserviced geographic areas; and
- To extend participation in the provision of telecommunication services to persons who had been historically kept out of the market, including women.

The Minister of Communications articulated the policy in an Address at the National Colloquium on Convergence Policy, 15 July 2003, as follows:

> *In bridging the digital divide through the utilization of the new technologies and expedited by convergence, our perspective on information and communications technology should be to continue to promote universal service, to ensure access for disadvantaged people and ensure that they participate as active producers in the information society, not merely as passive recipients of an imported and distant content.*

To facilitate the achievement of the policy objectives for USALs, the Telecommunications Act was amended in 2001 also to provide specifically for the payment of subsidies out of the Universal Service Fund (USF), in section 66(1)(f) to –

> *assist small businesses and cooperatives to acquire and construct infrastructure to provide telecommunication services to areas which are not served or not adequately served by telecommunication services.*

Other areas in respect of which the payment of USF subsidies may be made in terms of section 66(1) are –

- for the assistance of needy persons towards the cost of the provision to or the use by them of telecommunication services;

- to ... any ... holder of a licence in terms of Chapter V which imposes obligations on the holder relating to the extension of its telecommunication service to areas and communities which are not served or not adequately served by telecommunication services, for the purpose of financing such extension;
- to public schools and public further education and training institutions ... for the procurement of internet services ...;
- for the establishment of centres where access can be obtained to telecommunication facilities;
- for the establishment of public information terminals; and
- to facilitate the provision of multimedia services.

Section 66(2) of the Telecommunications Act obligates the Minister to determine a formula by notice in the Government Gazette in accordance with which the USF subsidies must be apportioned amongst the separate purposes. The LTI project team is not aware that this determination has been made. The question therefore arises whether any apportionment of money out of the fund in the absence of such a determination is valid.

The Universal Service Agency (USA) published a document (in Government Gazette 24917 dated 27 May 2003) entitled 'Notice of Draft Policy in respect of Subsidisation of the Under-Serviced Area Licensees by the Universal Service Fund in terms of section 66(f) of the Telecommunications Act (No. 103 of 1996), as amended'. This proceeding was never brought to a conclusion, however.

The USALs' licences, in paragraph 8.4(c), provide that Icasa may direct a licensee to repay subsidies received from the USF if Icasa is satisfied that the subsidy is used other than for the acquisition and construction of infrastructure 'in accordance with section 66(1)(f) of the Act'. The question arises whether this provision prohibits the USALs from receiving money out of the USF in terms of any other provision of section 66(1).

After the issuance of licences by Icasa, the USA signed an agreement with each USAL to the effect that a R15 000 000.00 subsidy will be paid to each USAL in three yearly instalments. There is no clear indication in the agreement that the second and third instalments are dependent on any reporting and/or specific use of the moneys. However, in terms of the agreement, a certificate of completion must be submitted to the USA within fifteen months of receiving the first instalment. The certificate of completion appears to be defined as a warranty that the 'works have been completed to the norms and standards of the Independent Communications Authority'.

The agreement does indicate that payment will be made only if a valid tax invoice is presented, the USAL is registered with the USA's EFT payment system and a tax clearance certificate is provided.

2 LTI PROJECT TEAM TERMS OF ENGAGEMENT

In January 2006, the USA engaged the LTI project team to conduct a review of the USALs in terms of the subsidy agreement (Request for Quotation, No 01112005 dated 1 November 2005).

The LTI project team conducted a review of the USALs in respect of –

- Corporate governance
- Regulatory compliance
- Business case

The LTI project team was neither engaged to nor did conduct a formal audit. The LTI project team asked questions both in writing and orally to the USALs and had to rely on the veracity of the answers and information provided. The LTI project team did not delve behind the answers to determine whether they were complete and accurate. This is in accordance with the extent of the terms of engagement and authority given to LTI project team by the USA.

The LTI project team was engaged to produce a report setting out recommendations on how the USA and other stakeholders, such as the DOC and Icasa might assist USALs to ensure sustainability. The report was to include recommendations for the USALs themselves and in particular in respect of their business cases. The report was also to include a section indicating how the ECA might affect the sustainability of USALs.

The following USALS have been awarded and have signed subsidy agreements with the USA. Only these licensees are the subject of this report.

Eastern Cape	
DC 15 OR Tambo District	Ilizwi Telecommunications (Pty) Ltd
DC 12 Amatole District	Amatole Telecommunications Services (Pty) Ltd
Limpopo	
DC 35 Capricorn District	Bokone Telecoms (Pty) Ltd
KwaZulu-Natal	
DC 26 Zululand District	Kingdom Communications (Pty) Ltd
DC 21 Ugu District	Thinta Thinta Telecoms (Pty) Ltd

North West	
DC 38 Central District	Karabo Telecoms (Pty) Ltd
Free State	
DC 18 Lejweleputswa	Bokamoso Consortium (Pty) Ltd

With the exception of Karabo Telecoms, the LTI project team enjoyed the cooperation of the USALs' senior management. In respect of Karabo Telecoms, the LTI project team attempted to meet with the CEO and did visit the offices of Karabo Telecoms in the Central District. A questionnaire was sent to Karabo Telecoms offices, but no response was received. Consequently, the LTI project team does not have much information about what has transpired with Karabo Telecoms. A further consequence is that the information synthesised reflects the other six USALs only.

The LTI project team used the following process.

- Preparation and transmission to the USALs of a written questionnaire. USALs were requested to complete the written questionnaire, sign it and return it.
- Site visits to the USALs to complete any outstanding questions from the written questionnaire and to address with the USALs any issues raised by their written responses.
- Interviews with a number of other stakeholders, namely, other telecommunication services licensees (Vodacom, MTN, Telkom and the SNO), equipment manufacturers (Lucent and Multisource) and the IDC. Others, such as the DOC and Icasa, were approached but were not able to grant the LTI project team interviews.
- Desk-top research
- Analysis of information provided and research undertaken
- Preparation of written report.

It was intended that the written report would be provided to the USA by the week of 10 April 2006. However, during the week of 13 March 2006, the LTI project team was requested to present its findings to the USA Board on the 25th March 2006. The LTI project team made such a presentation and attended a meeting of representatives of the USA, the Department of Communications (DOC) and Icasa following the USA Board meeting, on the 27th March 2006.

Furthermore, a preliminary and abridged report was submitted, at the request of the USA, on 20 April 2006 in advance of another USA Board meeting.

3 FACTUAL OBSERVATIONS

3.1 CORPORATE GOVERNANCE

It is difficult to give a generalised and overall view of corporate governance practices among the USALs as these vary widely. While some of the USALs have had stable shareholding and directorship environments, others have seen shareholder disputes which have resulted in key figures leaving, large amounts of time being taken up with managing shareholder expectations and, in one case, subsidy monies being removed from company bank accounts without company authorisation.

Even among the more stable USALs, however, it is clear that corporate governance practices are weak. USALs have not passed board charters and do not have succession plans. The boards also have not engaged in evaluations of key personnel such as the CEO and the Chairperson, and also have not engaged in self-evaluation. Very few of the boards have functioning and effective board committees and in some cases, the USALs lack basic financial management and corporate record keeping skills. In many cases appropriate control policies and systems are lacking.

What is common to all of the USALs is the lack of training at both board and management level with regard to a number of issues that are critical to the successful operation of USALs. These include:

- Corporate governance principles, including in respect of appropriate record keeping
- Operations of a telecommunications company
- Understanding the telecommunications industry generally, particularly issues such as interconnection.

3.2 REGULATORY COMPLIANCE

As is clear from the responses to the questionnaire, the USALs replied 'not applicable' to a number of the questions posed. Obviously this is not strictly speaking correct as requirements set out in licence conditions, regulations and pieces of legislation are clearly applicable. However, this response reflects the fact that none of the USALs is in fact currently providing its own services to customers. The USALs are currently piggy-backing on existing MCTS networks provided by MCTS licensees. Because of this, a number of licence conditions cannot be complied with.

While the USALs generally comply with ownership and control regulations, a number are not complying with reporting requirements specified by ICASA, particularly in respect of Department of Labour reports and the Code of Practice for Consumer Affairs.

3.3 BUSINESS CASE

Under the heading, business case, the LTI project team looks at the business case under the three major headings, financial status, business plans and technical plans.

3.3.1 Financial Status

This section provides a review of the USALs' historical funding status, likely sources of funding in future, a summary of their spending to date. The LTI project team has added some conclusions, which include comment on the financial outlook for the USALs.

3.3.1.1 Funding to Date

The primary source of funding to date has been the USF subsidy. Each USAL received the first tranche of R5 million during 2005, resulting in a total of R35 million in disbursements from the USF.

In addition to this, six of the USALs have raised funding in the form of shareholder contributions to a total value of R6.2 million, which is an average of just over R1 million per USAL.

One USAL has raised bridging finance from a bank to the value of R1.1 million.

Generally, working capital is not available to any of the USALs, and most have used part of the USF subsidy for working capital rather than for infrastructure.

Sources of Funding

	Total	Average	USAL1	USAL2	USAL3	USAL4	USAL5	USAL6	USAL7
USF subsidy	R35m	R5m	R5m	R5m	R5m	R5m	R5m	R5m	R5m
Shareholder contributions	R6.3m	R1.1m	R0.13m	R1.2m	R0.6m	R1.0m	R1.4m	R1.9m	NA
Short term loans (bridging)	R1.1m	NA (one USAL only)	NA	NA	R1.1m	NA	NA	NA	NA
Vendor finance pending (applied for)	R23m	NA (one USAL only)	NA	NA	NA	R23m	NA	NA	NA
Vendor finance approved (but not yet disbursed)	R13.8m	NA (one USAL only	NA	NA	NA	NA	R13.8m	NA	NA

Other loans applied for or awarded (but not yet disbursed)	R217m	R54m	R53m	NA	R65m	R48m	R51m	NA	NA

3.3.1.2 Funding in Future

Potential financiers have been approached by the USALs with a view to funding infrastructure. Of the financiers approached, only the Industrial Development Corporation, in combination with Lucent, have proven willing to consider such applications, contingent on various issues being resolved, including that of availability of suitable spectrum and the use of a shared services platform. As part of its governance oversight, the IDC would like to take an equity share in the USALs in which it invests. However, under the current ownership and control regulations, this option is not available to it.

Of the funding applications:

- One has been "approved" – although this approval is contingent on spectrum approval and certain other conditions;
- Three are at an "advanced stage" of evaluation; and
- The other applications are in progress and are either not yet submitted or are pending significant further due diligence processes.

The "approved" application is valued at approximately R65 million, consisting of:

- Vendor financing of approximately R14 million, and
- IDC backing valued at approximately R50 million.

The three "advanced stage" applications are each for a similar order of magnitude per USAL, and thus, amount to a total of more than R150 million for the three USALs.

3.3.1.3 Spending to Date

The following table summarises the spending to date by the USALs.

Spending to Date

	Total	**Aver-age**	**USAL1**	**USAL2**	**USAL3**	**USAL4**	**USAL5**	**USAL6**	**USAL7**

Opex • Start-up costs • Rent • Salaries • Office Preparation • Office Furniture • Computers	R11.8m	R3,9m	NA	R3.7m	R3.9m	R4.2 m	NA	NA	NA
Repayment of shareholders' loans	R1.2m	R1.2m (one USAL only)	-	R1.2m	-	-	NA	-	NA
Network and business plans (consultant fees)	R2.4m	R0.6m	R0.5m	R0.6m	R0.6m	R0.8m	NA	NA	NA
Actual spend on infrastructure to date (as defined by the USA)	subject to verification	NA	-	R0.1m	R0.4m	-	NA	R6.9m subject to verifica-tion	NA

When asked about the opex of funds provided from the USF for infrastructure purposes, most USALs indicated that they had expected other funding to come through, ahead of the end of the financial year, which would have allowed them to demonstrate not only the opex but also the capex application of funding.

Only one USAL indicated that it has committed the entire amount of the first R5 million USF subsidy tranche to infrastructure. However, the actual application of the funding to infrastructure remains to be confirmed by auditors, as there has been a question raised about the whereabouts of the actual USF subsidy monies. The question also arises about the use of the USF subsidy for CorDECT technology whereas the licensee has indicated that its preferred eventual technology is CDMA.

Other, smaller amounts of so-called infrastructure spending have been recorded by two of the USALs, in the area of billing and administration systems.

In nearly all cases, the majority of the first tranche of the USF subsidy (approximately 80 percent) has been spent on start-up and operating costs.

In one case, it was evident that some of the monies had been used to repay shareholder loans, although it is probable that this applies to at least one other USAL as well.

A further amount has been spent on consultant fees for the preparation of business and network plans.

Very little of the initial USF subsidy of R5 million has been retained. In at least one case, however, an amount of R1 million has been retained explicitly to cover the tax liability of the USF subsidy.

3.3.1.4 Taxability of the USF Subsidy

Sars has indicated, in response to a request on behalf of one of the USALs, that the USF subsidy is taxable as gross income. This information was provided to the LTI project team by the USA itself.

However, some observations relating to this issue are noted –

- Accounting principles have not been uniformly applied by the USALs and tax advice was not obtained by most.
- Some tax experts are of the opinion that there is an argument that the USF subsidy income need not be recognised as "turnover", or can be deferred as such until such time that it is deployed according to the conditions attached to the subsidy, until which time, it would be accounted for as "cash received in advance".
- Uncertainty in this regard inhibits USAL operations due to:
    - Its negative impact on the USALs ability to source tax clearance certificates, and
    - Its negative impact on the USALs' ability to raise funding due to its adverse impact on their balance sheets.
- Until the issue is finally resolved, the timing of the allocation of fund will be an important factor. In the first tranche of allocations, most of the USALs received their money just weeks before their financial year-ends. Since they did not have much time to spend the money before their financial year-ends, they were caught with these huge "incomes" – which exacerbates their tax situations.

3.3.1.5 Summary of Financial Status of USALs

The following generally applies to all USALs.

- USALs suffer from insufficient shareholder funds,
- USALs haven't been able to access sufficient operating expense funds, that is, working capital to fund immediate operations, and
- Even if USALs were to secure bridging finance, there would be insufficient cash flow from current operations to sustain operations and service debt.

Furthermore, most of the USALs have inadequate financial administration systems and processes in place, concomitant with a severe skills deficit in this area. This has compounded the USALs' ability to make sound financial decisions and to comply with the conditions attached to funding sources.

3.3.2 Business Plans

The following section provides a review of the USALs' subscribers and revenue, operating expenditure, profit and loss, product development and marketing plan and management and employee issues. The LTI project team has included a section comparing the business plans submitted with the USAL applications and those that currently exist.

3.3.2.1 Subscribers and Revenues

The following is the subscriber and revenue profile of the USALs that have a reseller arrangement with an MCTS licensee.

In respect of subscribers –

- There is an estimated total of 17,000 customers between the six players; an average of approximately 3,000 customers per USAL; with a range of 700 to 7,500
- The exact numbers of customers that are still active is not known, but it is generally known that in the pre-paid market, little repeat business can be counted on, thus these customers may churn away from the USALs unless active marketing processes continue on an ongoing basis

In respect of revenue –

- In respect of the three USALs that provided sufficiently detailed information, the estimated total revenue was R2.4 million during the first year of operation; an average of R800,000 per USAL
- Of the other USALs:
    - two USALs did not disclose detailed information
    - one USAL is not yet operational

Average revenues per user (ARPUs) were estimated at approximately R20 a month for the first 6 months, which is significantly lower than the national average of around R75 a month. This is an approximate figure because the USALs could not accurately report on the number of customers that remain active after they have used up their initial bundle of minutes. The LTI project team has, thus, estimated an ARPU, which assumes that only half of the customers that were activated remained active users of the SIM card three months later.

This ARPU calculation includes approximately R6 per month in interconnection receipts, and R14 per month for airtime. Net retention on the revenue received is estimated at approximately 50 percent of total airtime value, i.e. R7 per month per SIM, excluding interconnection receipts.

The reasons for low ARPUs are the high pre-paid customer churn rates as well as the usage of multiple SIMs by customers. Thus, the total ARPU per customer is likely to be higher than R20, but this spending is distributed between more than one SIM card, and usually between more than one services provider. Another factor contributing to a low profitability in respect of customers is the poor economic areas in which the USALs operate.

3.3.2.2 Future Subscribers and Revenues

Under the current reseller business, the USALs indicated that they expect their customer numbers to grow dramatically – in the order of ten-fold in the next twelve months. However, none of the USALs could provide monthly figures that would allow the LTI project team to validate the projections based on the month-on-month growth trend.

There is also a need for the USALs' ARPU to grow, if meaningful revenue targets are to be achieved. Although most USALs could not provide exact details of current ARPUs, the evidence provided suggested that the ARPUs are currently very low. Boosting ARPUs in future requires a concerted marketing effort, being highly dependent on promoting the sale of re-charge vouchers. The USALs are unable to sustain this activity due to the lack of working capital. They lack the working capital to fund the direct costs associated with bringing services to market – including the most basic direct cost elements, such as procuring the next round of SIM cards and re-charge vouchers. They are also unable to migrate from a pre-paid to a potentially more lucrative post-paid (contract) model, due to the same funding limitations.

3.3.2.3 Operating Expenditure

In the first year of operation, the average operating expenditure per USAL was in the region of R3.5 million. The USALs that have planned network rollouts in their second year of operation are planning for an operating expenditure of about R8 million. This is slightly more than double that of the first year, although in most cases the first financial year only included about six months of actual operation.

3.3.2.4 Profit / Loss

According to their business plans, most of the USALs hope to go EBITDA positive in their third year of operation. However, the LTI project team believes this to be an unrealistic

expectation for most (if not all) USALs, being highly sensitive to assumptions in business plan, which we believe to be optimistic, including:

- Assumptions related to the total telecommunications market size in the area
- Assumptions related to market share growth expected by the USALs

Losses incurred to date have significantly weakened the USALs' balance sheets, which makes it more difficult for them to source further funding from traditional sources such as banks.

3.3.2.5 Product / Strategic Market Plans

Most of the USALs lack skills in the area of strategic market planning and product development. For example, there is a need to understand that marketing encompasses more than just the discipline of marketing communications, and includes detailed analysis of customer segmentation, needs and competitive dynamics.

Since this type of skill is generally lacking, most of the USALs have plans that have been written substantially by consultants, or by vendors.

3.3.2.6 Management / Employee Issues

Amongst them, the USALs have over 100 people working to assure their survival and success. Of these, only 25 percent work full-time for pay, another 25 percent work part-time for pay and the balance work on a volunteer-basis. Inadequate working capital will constrain this picture further, amidst increasing pressure for more and better skilled human resources.

USALs are generally characterised by a severe lack of telecommunications industry skills, generally augmented by vendors. This is in all departments, including:

- Management (including governance)
- Telecommunications industry
- Legal and regulatory
- Financial
- Technical
- Marketing

The USALs recognise their need for skills development and training, and have expressed a desire to address this need.

3.3.2.7 Comparison of Current Business Plans with Business Plans submitted with Applications

The USALs have business plans that differ from their original plans as set out in their application in the following ways:

- Choice of technology. Most of the business plans now embrace a technology plan based on CDMA. The original plans did not mention CDMA directly, or only indirectly alluded to the need for spectrum to make this type of technology workable.
- Shared services arrangements. Most of the USALs now support the concept of a shared services platform. This concept was embodied in some of the applications, but most of the plans did not assume cost savings in respect of their cost structures – which could be essential to future viability, as is recognised by IDC as being one of their pre-conditions for approving finance.
- Reseller arrangements with mobile operators. Four of the seven USALs' applications embraced this concept, although there have been some changes subsequently in respect of choice of partner and specific details. Of the remaining three, all have subsequently embraced the model, although in one case, this agreement has subsequently been terminated by the USAL.
- Quantum of capital expenditure. This aspect of the business plan has changed very little since the applications were submitted. These plans had capex budgets for the network rollout of between R30 million and R96 million, with an average of R65 million. This is very similar to the current average capex plans.
- Quantum of revenue and operating expenditure budgets. The main difference observed relates to the timing of the revenue and expenditure flows. The original applications generally revealed an expectation that the USALs' own networks and services would be rolled out within the first year, and revenues would amount to typically between R15 and R20 million in the first year of operation, with operating expenditure following suit. This is far different from the actual experience in the first year, and also far from reality in respect of the immediate growth opportunities facing the USALs.

3.3.2.8 Conclusions on Business Plan Status

The general business plan health of the USALs is poor.

3.3.3 Technical Plans

The following section provides a review of the USALs' current technical plans and issues related to spectrum, interconnection and relationships with other industry players. The LTI project team has added conclusions that include subjective comment on the technical plan status, including viability of the plans.

3.3.3.1 Current Network Status

To date, none of the existing USALs is operating on its own network infrastructure.

Six of the USALs are reselling GSM services, under their own brand, by arrangement with the MCTS licensees –

- five with Vodacom, and
- one with MTN.

One USAL has also entered into a reselling arrangement with Telkom.

One USAL initially entered into a reseller arrangement, but subsequently terminated the relationship, citing unfavourable terms and conditions.

3.3.3.2 Future Network Plans

Five of the USALs have chosen CDMA as their technology of choice, all with Lucent as the likely technology partner. Each of these USALs have planned for an infrastructure rollout valued at between R50 million and R70 million.

One USAL has selected WiMAX as a preferred technology for its access network. The value of the planned network rollout is also in the region of R50 to 70 million, and is planned to take place in a phased approach.

One USAL has submitted information to the LTI project team stating that it has ordered a CorDECT based system, from MIDAS of India. The logic apparently behind this decision was that a rollout could be completed within the R15 million limitation of the USF subsidy. However, the ultimate plan is more likely to be similar to the other USALs that have chosen CDMA, and therefore also in the region of R50 million rather than R15 million.

3.3.3.3 Interconnection

All of the USALs that are currently operating as resellers with either Vodacom or MTN have an arrangement to interconnect with both of these mobile operators and Telkom, via the MCTS licensee. One of the USALs has negotiated an arrangement with Telkom, whereby Telkom is re-filing calls on the USAL's behalf to or from other operators.

The USALs also have national roaming arrangements, whereby USAL customers can roam nationally whenever they are travelling outside of their USAL area.

The interconnection arrangements do not extend to Cell C. It apparently wants to negotiate its own interconnection agreement with each of the USALs. None of the USALs has signed such an agreement with Cell C because Cell C desires a geographically bound arrangement, which is unacceptable to the USALs. The USALs are thus currently unable to interconnect with Cell C.

As set out above, the overall net retention percentage is relatively favourable to USALs, at approximately 50 percent of airtime (with an additional revenue component for the USALs from interconnection receipts). The problem, however, is that there are significant fixed cost components from year two onwards set out in the reseller agreements, which could be in the region of R50,000 to R60,000 a month. This fixed cost component, of R6 to R7 million a year, is almost double the total annual operating expense budget of any of the USALs currently. This cost component raises the break-even point. A USAL would need to have about 20,000 customers before it would be able to make a net profit, given the current low ARPU levels. Although most USALs are hopeful to achieve this level of subscriber growth in their second year of operation, these numbers are optimistic considering the inadequate level of marketing activities, due to current working capital (and skills) constraints.

With regard to outgoing calls, the observation must be made that "net retention" is the most important parameter when looking at interconnection costs. If the USAL operator needs to reduce its prices in order to be more competitive, and its termination fees paid to other networks are unchanged, then the net retention revenue (and hence gross operating income) diminishes very significantly, to the point that the business case may be undermined.

3.3.3.4 Spectrum

One USAL has been awarded a test licence in the 3.5 GHz spectrum for use with WiMAX technology.

Four USALs have applied for licences in the 850 MHz range (825 MHz to 835 MHz – broadcasting channel 65), for use in their CDMA deployment. Thus far, only one USAL has been granted a test licence in the 850 MHz band.

3.3.3.5 Conclusions on Technical Plans Status

Many of the USALs have selected CDMA based networks as their technology of choice and are currently in a very difficult situation with the lack of suitable spectrum available. This deficiency is threatening their entire business case, in particular their ability to access external funding from the IDC and vendors.

In the interim, most of the USALs are basing their entire short-term business plans on reseller arrangements, and many of the USALs have indicated that these arrangements are severely limiting in respect of their ability to assist the USALs to become sustainable, after the end of the first twelve months of the contract.

3.4 SUGGESTIONS MADE BY USALS

The USALs provided considered suggestions on how to ensure sustainability. The following helpful suggestions were made by most of the USALs.

- Icasa to make available requested frequency spectrum
- Training
    - in corporate governance matters
    - in respect of the telecommunications industry in general
    - in business skills
- Legal assistance
    - in negotiating interconnection and other agreements
    - in developing policies and controls to meet corporate governance standards
    - in respect of regulatory issues
- Clarification of the requirements in respect of what the subsidy can and cannot be used for

Some other useful suggestions from USALs included the following.

Action to be taken by the DOC

- Suspend the licensing of additional USALs and focus on assisting existing USALs
- Facilitate the involvement of USALs in the provision of services to public schools, the establishment of telecentres and multi-purpose centres and public information terminals in the underserviced areas (all of which attract additional USF subsidies)
- Encourage other government entities, eg, Sentech and Sita, to utilise USAL services and/or enter into partnerships with USALs

Action to be taken by Icasa

- Promulgate effective regulations that lead to effective intervention in interconnection disputes
- Include USALs in the number portability regulatory regime

Action to be taken by the USA

- Establish centre for USALs to access business, legal and technical advice and assistance

- Facilitate a shared services group in respect of items requiring a large capital outlay (and make subsidy money available for this purpose)
- Bring forward the date of award of the subsidy amount
- Increase the subsidy amount
- Gear the subsidy amount to the actual amount needed by the USAL
- Obtain clarification from Sars as to whether the USF subsidy is taxable

3.5 SUGGESTIONS MADE BY OTHER STAKEHOLDERS / OTHER INTERESTED PARTIES

Interviews were conducted or written submissions received from the following interested parties.

- Vodacom
- MTN
- Telkom
- SNO
- Lucent
- Multisource
- Industrial Development Corporation

The LTI project team attempted but was unable to arrange interviews with the DOC and Icasa.

The other telecommunication services providers generally pointed out difficulties that were primarily identified by the USALs themselves, namely, a lack of skills and need for training, that the subsidy must be increased and paid out earlier and it must be clarified what it can be used for beyond the building of infrastructure, and the need to amend the ownership regulations.

The SNO specifically pointed out the need for Icasa to adopt cost based interconnection for all players in the market and to apply more stringent regulations for those entities with significant market power.

It also pointed out the need to allocate/assign 800 MHz spectrum to the USALs as a matter of priority.

Most of the other interested parties identified the need to look again at the policy objectives and the USAL model before licensing additional players.

The SNO stated –

In an analysis of the issue, IDRC observed that the USALs represent a flawed convergence of two distinct goals - an empowerment model to broaden ownership and control of telecommunications to previously disadvantaged individuals residing locally in historically under-serviced and marginalised Districts; and a regulatory model to introduce competition in such Districts as the best way to grow the market. Both of these are laudable goals, and each would work well if part of another model. The flaw lies in trying to achieve them through the same mechanism.

The equipment manufacturers, Lucent and Multisource identified many of the same issues.

Lucent, IDC and Multisource also pointed out that the facilitation of shared services would help USALs attract vendors and financing.

The IDC, the only funder considering significant investment in the USALs, also identified many of the problem areas set out above. It specifically identified the need for the ownership regulations to be amended to allow funders such as itself to take an equity stake in more than one USAL.

3.6 POSSIBLE IMPACT OF THE ELECTRONIC COMMUNICATIONS ACT

The ECA has been published in Government Gazette 28743 dated 18 April 2006. However, it will only come into force on a date to be determined by the President, which has yet to be set. The Telecommunications Act will continue to be in force until the coming into effect of the ECA.

When the ECA does come into force, its provisions will have a significant impact on the communications sector, particularly telecommunications. Perhaps the most important change is that the ECA provides a changed market structure and licensing regime, which will probably lower barriers to entry.

Under the converged regime, there will be the following types of services providers:

- communications network service licensees;
- communications service licensees; and
- broadcasting service licensees.

In terms of Chapter 3, services providers must obtain either an individual or class licence, or be exempt from licensing. The legislation also sets out examples of each of the categories: individual, class and exempt.

Individual licences include:

- Communications networks of national or provincial scale operated for profit
- Commercial broadcasting and public broadcasting of national or provincial scale whether free to air or subscription
- Voice telephony communications services that use numbers from the national numbering plan
- Communications network, communications or broadcasting services where a state entity owns more than 25 percent
- Other services where Icasa finds they have significant social or economic impact

Class licences include:

- Communications networks of municipal scale operated for profit
- Community broadcasting and low power services whether free to air or subscription
- Other services where Icasa finds they do not have significant social or economic impact

Exempt services include:

- Communications services provided not for profit
- Communications services provided by resellers
- Private communications networks (where excess capacity is not resold)
- Local area networks
- Other services as determined by Icasa

The ECA provides that ICASA is to make regulations providing for a licensing regime. Class licences are to have standard terms and conditions and these may vary for different types of class licences. Class licences are required to be granted by ICASA within 60 days of receiving a registration notice from the would-be licensee.

This new regime will lower regulatory barriers to entry and it is clear that the intention of the ECA is to stimulate the growth of and competition in the electronic communications sector. While this is likely to have a beneficial impact on the industry overall, there is little doubt that it might lead to greater competition even in under-serviced areas. The ECA is a cause for concern among USALs as the markets in which they operate might be very different from those that existed or were envisioned at the time of them applying for and receiving their licences.

Another important issue is the revised provisions regarding payments from the to-be-renamed Universal Service and Access Fund. In this regard. section 88 of the ECA details how monies from the fund are to be utilised. Section 88(1)(b) is a combination of what is now

found in section 66(1)(b) and 66(1)(f). Section 88(1)(b) provides for the payment of subsidies to an electronic communications network service licensee for the purpose of financing the construction or extension of electronic communications networks in under-serviced areas. Section 88(2) read with section 88(3) provides that Icasa must, by regulation, define under-serviced areas and must review such definitions and the list of designated under-serviced areas at least bi-annually.

Similarly, section 66(1)(a) is repeated in section 88(1)(a) regarding needy persons. Sections 88(c) and (d) replace section 66(1)(c) and 88(1)(e), 66(1)(d) regarding schools and access centres. Sections 66(1)(e) regarding public information terminals and section 66(1)(g) regarding multimedia services have not been retained in the ECA.

In our view, the effect of these new provisions relating the USF is likely that USALs will continue to be able to draw upon funding made available by the USF in terms of section 88(1)(b), for so long as the areas of operation of the USALs continue to be under-serviced. Other licensees coming into under-serviced markets served by USALs may also be able to argue for funding on a similar basis, however. The USALs will also continue to be able to access USF subsidies in terms of section 88(1)(c), (d), and (e) as they currently can under the Telecommunications Act.

The provisions of section 90 of the ECA contain revised provisions requiring to-be-renamed Universal Service and Access Agency to provide incentives in the form of project grants to electronic communications network service licensees to construct networks in under-serviced areas. We think that possible effects of this is that while USALs may be able to gain access to these project grants, other electronic communications network services providers may also be able to do so.

4 CONCLUSIONS

The LTI project team undertook the review of USALs in the context of the policy objectives underlying the licensing of services providers in underserviced areas, namely -

- To enhance universal access in the most underserviced areas; and
- To extend participation in the provision of telecommunication services to persons who have been historically kept out of the market, including women.

The goal was to find ways to assist USALs to be sustainable in that context. The team does not recommend, nor was it contemplated that it would recommend, that the subsidy scheme be eliminated and the USALs be left to fend for themselves in a competitive market place.

In the course of engaging the USALs, the LTI project team was struck by the depth of commitment and staying power of the USAL shareholders. Many of them work long hours without compensation or commendation. They evince a strong pride of ownership and hope for a better tomorrow.

The LTI project team has, however, has concluded that without significant intervention by the Minister, Icasa, the USA, the USALs themselves and other stakeholders, most if not all of the USALs will not survive.

The LTI project team observed in respect of the policy context that there is increasingly a shift in focus from access (the building of infrastructure) to affordable access (providing low cost services). Indeed, since the determination of underserviced areas in 2001/2002 the MCTS licensees have succeeded in providing significant coverage in the underserviced areas. The focus is also shifting from access to basic telephony, to access to more advanced and value added services, such as Internet access.

In terms of the South African government's Accelerated and Shared Growth Initiative for South Africa (AsgiSA), 'electronic communications as a key commercial and social infrastructure will be one focus of priority attention'. The following are identified as specific plans to be implemented –

- a strategy to rapidly grow South Africa's broadband network
- a plan to reduce telephony costs more rapidly
- a submarine cable project that will provide competitive and reliable international access, especially to Africa and Asia
- Provision of subsidies to encourage the establishment of telecommunications – and labour-intensive businesses in poor areas

Although the focus in respect of universal access has and will continue to change, the South African government continues to recognise the importance of the USAL initiative in respect of the second economy.

In her introduction to the DOC's Strategic Plan 2006-1009, the Minister, inter alia, states the following.

> *The need to bridge the digital divide, to close the gap between the first and second economies and to integrate marginalized societies into the mainstream, is a battle that we cannot and must not lose. Hence the Department sees itself as a cog in the multifaceted approach by Government and civil society to build a coherent, integrated and harmonised South Africa. Our approach, as gleaned in this document, is to use ICT's to build a cadre of skilled professionals for integration into our economic*

machinery, to demystify and make ICT's work for ordinary citizens, to make ICT's a central tool for social and economic processes.

The LTI project team's recommendations are made in this evolving policy context.

5 RECOMMENDED INTERVENTIONS

The LTI project team's recommendations fall into two categories, namely

- Critical Immediate / Short Term Interventions, and
- Supporting Medium Term Interventions.

5.1 Critical Immediate / Short Term Interventions

The LTI project team has identified three critical immediate / short terms interventions that are required for the survival of the USALs.

- Increase in and changes in respect of allocation of the USF Subsidy
- Access to CDMA (and other necessary) or alternative spectrum
- Promulgation and enforcement of interconnection regulations to ensure cost based interconnection from all other telecommunication services providers

5.1.1 USF USAL Subsidy

One of the most acute limitations on USAL activity is the lack of capital. Consequently, one of the most immediate interventions required is the availing of funding. The LTI project team recommends that the total subsidy allocation (per USAL) be increased from the current R15 million, and that provision be made for both opex and capex.

The underserviced areas have been eschewed by most telecommunication services providers because of their low potential for profitability. Average revenues per user (ARPUs) are generally low because disposable incomes are low. The classic profit-driven motivations therefore will fail to achieve the objective of extending affordable access to telecommunications services in these areas. Clearly then a developmental approach needs to be explored. This was recognised from the inception of the USAL programme and should not be forgotten now. The USALs have sought finance from different sources and thus far, only a developmental-sensitive organization (the IDC) has shown any inclination to fund USAL operations.

What is clear however, is that the current allocation of R15 million over a three year period out of the USF is not adequate. The LTI project team is of the opinion that in order to assist USALs survive the start-up years and become viable entities, the USF subsidy or subsidies should be increased and that that provision should be made to allow use of certain of the

funds for opex and certain of the funds for capex. In respect of an increase, in accordance with the LTI project team's observations, the team suggest that the USAL subsidy be increased to a minimum of R30 million per USAL.

To meet the immediate challenge of lack of operating capital, the LTI project team recommends that a distinct opex allocation be set aside for each USAL, to be administered over a number of years, on a draw-down basis as needed, with the following rules applied:

- The annual totals could be split between two halves or four quarters of each year,
- Draw-downs would only occur on demonstration that the previous subsidy allocations had been properly used, and
- Draw downs would only occur on demonstration of actual need.

The USA should take a proactive role. It should clearly set out the procedures and criteria for obtaining the subsidy monies. This will require setting out policy in respect of which parts of opex can be funded out of the USF subsidies. The LTI project team specifically recommends that the USALs be allowed to fund all necessary opex that gives them access to expertise that they otherwise lack within themselves, such as consultants' fees for network and business plans.

It will also require setting out procedures that must be followed in demonstrating need as well as in demonstrating that the previous subsidy allocations had been properly used. The USA will also have to take allocate resources in efficiently administering the allocation of moneys in terms of the policies.

The LTI project team also recommends that a capex allocation be based on actual need, up to a certain amount (a cap) for each USAL. In this respect, all of the USALs will not necessarily receive the same amount. The LTI project team has recognised in the course of this project that a one size fits all subsidy programme is not necessarily appropriate as some of the USALs are more needy than others.

The administration of the capex allocation could differ from the current opex subsidy, as follows:

- The USA will not have to release capex to the USALs, as they can release the funds directly to supplier,
- The USA could review technology plans to ensure sustainability before releasing capex, and

- The USA will no longer have to hold on to the capex to spread it over three years, as they will be able to release funds that are properly motivated.

The USA will also have to clearly set out the procedures and criteria for obtaining the capex subsidy monies. This will require setting out policy in respect of which parts of capex can be funded out of the USF subsidies. In this respect, the LTI project team specifically recommends that the USALs be allowed to fund their participation in shared services platforms out of the capex allocation.

The USA must also set out criteria and procedures that must be followed in demonstrating the sustainability of technical plans and motivation for the requested subsidy amount. The USA will also have to take allocate resources in efficiently administering the allocation of moneys in terms of the policies, and in particular in reviewing technical plans.

In order to effect this recommendation, the Minister, Icasa and the USA will have to carry out various tasks. Section 66(2) of the Telecommunications Act obligates the Minister to determine a formula by notice in the Government Gazette in accordance with which the subsidies must be apportioned in terms of the separate purposes. The LTI team recommends that this be done as a matter of urgency. The team notes however that this requirement is not included in the ECA.

Paragraph 8.4(c) of the underserviced area licences state that Icasa may direct a licensee to repay subsidies received from the USF if Icasa is satisfied that the subsidy is used other than for the acquisition and construction of infrastructure 'in accordance with section 66(1)(f) of the Act'. The question arises whether this provision prohibits the USALs from receiving money out of the USF in terms of any other provision of section 66(1). In order to effect the recommendations in respect of providing subsidies other than for 'acquiring and constructing infrastructure', the LTI project team suggests that this provision in the licences be eliminated.

The Universal Service Agency has signed an agreement with each USAL to the effect that a R15 million subsidy will be paid to each USAL in three yearly instalments. There is no clear indication in the agreement that the second and third instalments are dependent on any reporting and/or specific use of the moneys. The LTI project team suggests that the agreement be amended to take account of an increased subsidy, to indicate clearly what the subsidy may be used for, and to indicate clearly how the subsidy will be administered.

5.1.2 Spectrum

The USALs current business plans rely on the assignment of spectrum to them. One is relying on WiMAX spectrum, while the majority are relying on CDMA spectrum in the 800 MHz band.

The LTI project team recommends that spectrum should be made available immediately to the USALs. The difficulty is however that the CDMA 800 MHz spectrum is currently planned for use by broadcasters. In order to allow it to be assigned to USALs, Icasa would have to re-plan the spectrum first. This process could take up to 24 months to complete (or more depending on whether the re-planning is challenged), while various processes such as the current section 27 enquiry into the matter, are carried out.

The LTI project team therefore recommends that Icasa issue test licenses for the 800 MHz spectrum to USALs. The team understands that in respect of one USAL, such a test licence has indeed been awarded by Icasa. The team recommends that the other pending spectrum licence applications be dealt with in a similar manner.

What is clear is that unless such spectrum is not released in the very short while, the potential survival of USALs is severely hampered. And if the required spectrum is not released immediately, the USALs must be informed so that alternative technologies can be explored. In this event, the LTI project team recommends that the USA take a proactive role in assisting USALs with additional financial and resource assistance.

5.1.3 Interconnection

The Ministerial policy directions published in 2001 in respect of USALs direct Icasa to develop a standard interconnection regime applicable to all SMMEs for implementation from May 2002. Although Icasa embarked on an interconnection regime for USALs several years back, that proceeding apparently has been abandoned.

The USALs have struggled to conclude favourable interconnection arrangements with MCTS and PSTS licensees. The USALs have been forced to accept the existing interconnection regime amongst the MCTS and PSTS licensees as a baseline. Interconnection costs constitute an inevitably significant input cost for USALs. This results in a charge to the USAL end-user that defeats the objective of 'affordability'. A proper analysis of interconnection cost components is required to arrive at suitable detailed recommendations in this regard.
However, the LTI project team does recommend that Icasa amend the existing interconnection guidelines to ensure that USALs have access to cost based interconnection. In terms of the current regulations, USALs only have access to cost based interconnection from PSTS licensees. Icasa currently has a pending proceeding in which written and oral submissions have already been received. The LTI project team supports the successful conclusion of that process.

5.2 Supporting Interventions

The LTI project team has identified supporting interventions that will support the critical immediate interventions discussed above in order to ensure the sustainability of the USALs. We set out the supporting interventions that need to be made by the Minister/DOC, Icasa and the USA, respectively.

5.2.1 Ministry/DOC

- Facilitate (with Sars) tax exemption for USF subsidies
- Encourage government bodies (eg, local and provincial governments) to use USAL services
- Facilitate the provision of financial and other assistance for complying with interception regulations

5.2.2 ICASA

- Amend regulations to be more favourable towards USALs
    - Ownership and control: to relax cross ownership and foreign ownership restrictions, to enable USALs to attract investors
    - Carrier pre-selection: to improve the USALs' business case
    - Number portability: to improve the USALs' business case

- Amend licences
    - Amend requirements for infrastructure rollout to coincide with the current situation / plans
    - Delete certain provisions unnecessarily burdensome on USALs – eg, tariff filings
    - Delete licence fees, pending USALs becoming profitable

5.2.3 USA

- Create a professional services resource that USALs can draw from to cover areas such as –
    - Legal and governance
    - Regulatory
    - Technology
    - Business and financial

- Facilitate access to USF monies other than the USAL subsidy, eg
    - for the assistance of needy persons towards the cost of the provision to or the use by them of telecommunication services;
    - to … any … holder of a licence in terms of Chapter V which imposes obligations on the holder relating to the extension of its telecommunication

service to areas and communities which are not served or not adequately served by telecommunication services, for the purpose of financing such extension;

- to public schools and public further education and training institutions ... for the procurement of internet services and equipment necessary to access the internet;
- for the establishment of centres where access can be obtained to telecommunication facilities;
- for the establishment of public information terminals; and
- to facilitate the provision of multimedia services.