Consultation Document

A Universal Access/Service Strategy for Lesotho

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December 2002

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Purpose

The Lesotho Telecommunications Policy of 1999 places great importance on achieving "affordable, efficient and high quality universal info-communications services." This policy generally tasks the Lesotho Telecommunications Authority (LTA) with contributing towards the development of social goals of info-communications policy including the provision of universal service and universal access (Lesotho Telecommunications Policy 1999; paragraph 3.3.3). Specifically, this policy requires LTA to develop rules and guidelines that support the government's policy objectives and then to implement its universal service policy (Ibid; paragraph 3.5.1).

The purpose of this document is to generate discussion for a strategy that realises universal access of telecommunications services in Lesotho in the near term. This strategy aims to be consistent with the government's policy objectives for the sector and with Southern African Development Community (SADC) protocols.

All stakeholders – government, industry and the general public – are invited to comment on the preliminary recommendations raised in this document. Written comments from respondents will be made publicly available except where respondents indicate that their responses are confidential. Written comments are requested by 16 December 2002. The comments can be sent by post (for the attention of the Chief Executive Officer) to the following address:

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Maseru 100, Lesotho

Comments can also be sent by email to lta@lta.org.ls.

The written comments on the consultation document will be posted at the LTA website www.lta.org.ls by the 18 December 2002. In appreciation of African Telecommunications Union Day, a workshop is scheduled for 10 December 2002 at the LTA conference room at 10 a.m. At this workshop, LTA will make a presentation of its

preliminary proposal for universal access/service in Lesotho. All stakeholders are invited and encouraged to participate with the goal of stimulating an interactive dialogue.

Section 1: Summary of the Proposal

This document proposes a universal access/service strategy, which is designed to propel the telecoms sector of Lesotho into the 21st century through:

- Speeding the roll-out of basic as well as advanced services to all areas of the country by creating a national network to meet demand for services
- Promoting access to the Internet in all regions of the country
- Defining a basket of services that will be made universally available
- Increasing the number, location and accessibility of public pay phones and telebureaus so that all people everywhere in the country have reasonable access to telecoms services
- Ensuring universal quality of telecoms services that are affordable to the majority of users, priced to encourage uptake of new services and stimulate traffic growth
- Attracting investment to help existing operators expand and upgrade their networks as well as encourage new investment to build a robust Internet backbone.

With these objectives in mind, LTA proposes that:

- No additional universal service charge be applied during 2003/05 as the cost of network roll-out required to meet proposed goals is high
- Licence obligations for the fixed and mobile operators be used as the mechanism to ensure that the whole country is covered by fixed and mobile networks by the

end of 2005

- LTA and the Ministry of Communications work together to launch a pilot test project for the roll-out of telecentres in each district capital as a starting point. Locations to be considered include schools, libraries, post offices, bus stops etc.

- A universal service fund be established in early 2006 to support multifunctional telecentres and to provide incentives for operators to serve high cost areas.

This proposal is for the period 2003/05, beginning on 1 April 2003. In 2005, a review will take place and LTA envisions that the strategy will be amended to take into account the fully competitive environment scheduled for early 2006.

Stakeholders are invited to comment on all aspects of this consultation document. In particular, LTA hopes to stimulate debate and discussion in the following areas:

- The definition of what is "reasonable access to telecom services" in Lesotho

- What should be included in the basket of services that should be made universally available

- Location and functionality of pay phones to ensure maximum access for the phoneless

- Quality of service targets for fixed and mobile operators as well as Internet Service Providers (ISPs)

- Options for funding this universal access strategy and LTA's proposed recommendation

- What government can do to encourage operators to develop network infrastructure so as to promote universal access and high quality services throughout the country

- Suggestions for financing a pilot project to test demand for Internet services outside of the district of Maseru.

Section 2: Definitions of Universal Access and Universal Service

Universal access is a stepping-stone to the more encompassing policy of universal service – a phone in every home. Whereas universal service policies are designed to ensure that every individual has affordable and high quality telecoms services on demand; universal access policies are targeted at ensuring that telecoms services are within reach of the majority of the population. The underlying theme of both policies is to ensure that everyone has access to affordable, high quality services regardless of income, disability or geography.

Universal access policies are typically pursued in countries where telecommunications infrastructure is limited and where the majority of people do not yet have access to a phone. Thus, the policy goal is to make telecoms services accessible to a larger group of the population through extending the coverage of the telecoms network and the installation of public pay phones or multifunctional telecentres. Although the exact definition varies by country, there are three main concepts:

- Distance – a phone within a reasonable distance to everyone
- Time – a phone within reasonable traveling time to everyone
- Population – a phone per number of inhabitants.

A primary goal of this consultation document is to seek advice from stakeholders regarding the appropriate definition of universal access for Lesotho as well as which services should be included in the universal basket of services.

2.1 Evolving Concepts of Universal Service and Access

Definitions of universal service and universal access are dynamic and thus require periodic review. Although there are many factors to consider when migrating from one policy to the next, there are two primary change drivers:

- Teledensity – number of phone lines per 100 people. Economies with low teledensities (less than 10%) typically pursue access policies and national coverage goals. Once economies achieve a high level of teledensity (usually greater than or equal to 30%) policies of universal service are adopted. These policies focus on the specific sectors of society that have not been connected due to high cost, low income or disability

- Gross Domestic Product (GDP) per capita. GDP per capita affects the degree to which users can afford available services, which in turn affects an operator's overall revenues. In economies where GDP per capita is low, it will be difficult for operators to generate the needed income to support comprehensive universal service policies. However, in economies where GDP per capita is high users will have more disposable income to spend on telecoms services. Thus, operators will have larger sums available to support the broader goals of universal service.

Lesotho's status as a developing economy with low GDP per capita (US$296)[1] and fixed teledensity (1.2%)[2] warrants a universal access policy.

[1] 2001 figure taken from the Summary of National Accounts Data, Central Bank, Government of Lesotho, 2002.
[2] This figure does not take into account recently deployed wireless local loop infrastructure.

Section 3: Why Universal Service and Access Policies are Needed

The rationale for universal service and universal access policies is based on the premise that the market alone will not make essential telecommunications services available to everyone. Operators and service providers seek to make a profit:

- Given the choice, it is unlikely that operators would connect unprofitable customers or high-cost areas without a business case for doing so

- Operators do not have the entire economy in mind when they make investment decisions. Their first priority is to generate revenues to run their businesses rather than create a ubiquitous network that will benefit the whole economy.

These micro and macro economic issues are the main drivers behind historical obligations that have required operators to bring basic voice telephony to everyone, everywhere as a matter of national policy.

The dilemma facing policy makers is how to finance universal service and access policies in competitive environments. In monopoly environments, operators typically used cross-subsidies to finance the cost of policy goals. In competitive environments, subsidies are no longer viable because market forces exert a downward pressure on prices. Thus, operators find it increasingly difficult to cross-subsidise local services priced below costs with revenues from long distance and international services that are priced above costs.

3.1 Economic Drivers

The growing interdependency of the world economy means that unlike the agricultural and industrial revolutions, the impact of the information revolution is felt worldwide at more or less the same time. As a result, countries that want to

participate in the global economy need resources that allow their citizens to access, exchange and process information.

As well as keeping pace with progress, many developing countries are pursuing universal access policies against the backdrop of stimulating economic growth as evidence increasingly suggests that economic development is linked to teledensity. Studies by the International Telecommunications Union (ITU) for instance, indicate that each telecommunications line added in Africa contributes approximately US$4,500 to Gross National Product.

3.2 Social Drivers

Historical social drivers behind universal service policies include the promotion of greater cohesion among diverse population groups, including:

- Affluent and low income groups
- Urban and rural populations
- The young and the old
- Those with and without disabilities.

In addition to facilitating social cohesion, universal service policies are becoming an important means of ensuring that most people have reasonable access to essential telecoms and information services to fully participate in social and economic life.

Section 4: A Universal Access/Service Strategy for Lesotho

The Lesotho Telecommunications Authority Act of 2000 requires that LTA "take all reasonable steps to promote network development, universal service and access to telecommunications services."[3] The universal access strategy discussed herein has been formulated to meet these legal requirements. Additionally, Section 48 (1) of the Act requires LTA "to take into account the work and recommendations of international and regional organizations of which Lesotho is a member." Hence, this strategy also seeks to incorporate SADC's draft proposal for universal access issued in August 2002, which calls for policies that are designed to:

- achieve affordable and equitable access to the information and communications network, applications and services at community levels

- mobilise available resources in policy, regulation and funding to provide telecommunications access to the community

- increase expansion of learning opportunities, the acquisition and the provision and sharing of information

- achieve increased access to the information and communications network by all people in SADC in a way that enhances economic inclusion, participation and regional and international dialogue.

With these goals in mind, LTA is proposing a fast track strategy designed to propel the telecoms sector of Lesotho into the 21st century. Our strategy envisions pursuing network coverage and access simultaneously with the definition of access including access to advanced communications services like the Internet. In the absence of an aggressive policy, LTA believes that not only will Lesotho remain far behind the developed

[3] Lesotho Telecommunications Authority Act 2000, Section 15 (2)(a).

countries in terms of communications infrastructure, but will also remain one of the least developed countries in its region. The proposal herein is designed to:

- Speed the roll-out of basic as well as advanced services to all areas of the country by creating a national network to meet demand for services
- Promote access to the Internet in all regions of the country
- Define a basket of services that will be made universally available
- Increase the number, location and accessibility of public pay phones so that all people everywhere in the country have reasonable access to telecoms services
- Ensure universal quality of telecoms services that are affordable, priced to encourage uptake of new services and stimulate traffic growth
- Attract investment needed to help existing operators expand and upgrade their networks as well as encourage new investment needed to build a robust Internet network
- Set a timeframe for achieving and reviewing goals.

4.1 National Coverage

Initial liberalisation without clearly defined policy goals has resulted in network build-out concentrated primarily in the nation's capital and its environs. As of October end 2002, the country had a fixed teledensity of 1.2% with 68% of all fixed line subscribers located in the district of Maseru. The average fixed teledensity in other districts is only 0.5 percent. The districts of Berea, Mafeteng, Mohales Hoek and Quthing have the lowest

teledensities at 0.4 percent. Table 4.1 shows the fixed line teledensities, excluding wireless local loop[4] and fixed cellular connections, of each district.

Table 4.1: District Teledensities

District	Population	Subscribers	Teledensity
Maseru	486,582	16,836	3.7%
Berea	305,626	1,280	0.4%
Leribe	370,364	2,688	0.7%
Butha Buthe	127,836	1,024	0.8%
Mokhotlong	91,453	512	0.6%
Thaba Tseka	136,602	956	0.5%
Qacha's Nek	81,230	512	0.6%
Quthing	142,170	512	0.4%
Mohale's Hoek	208,750	896	0.4%
Mafeteng	241,105	1,024	0.4%
TOTALS	2,191,718	26,240	1.2%

Source: Telecom Lesotho, October 2002

Approximately, four people in a hundred have a mobile phone but coverage for these subscribers is also primarily concentrated in the district of Maseru and surrounding areas.

Consequently, LTA believes that the development of a national network that covers all major roads and towns as well as designated minor towns and villages must be realised in the near term. Without coverage, even customers who can afford to pay cannot be connected.

4.2 Access to the Internet for all Regions

Access to advanced communication services such as the Internet is increasingly part of universal service and access initiatives. Reasons include:

- Educational purposes. Operators are required to connect schools to the Internet, usually at discounted rates, to ensure all children regardless of income have

[4] By November 2002, TL had installed WLL systems with a capacity of 20,000 subscriber lines.

access to this essential tool in today's society

- Avoiding a society of information haves and have-nots. There is growing awareness in both developed and developing countries that access to the Internet provides people with resources that enhance their participation in civic, educational, cultural and commercial activities

- Economic development and competitive advantage. Economic growth and competitive advantage are increasingly associated with an advanced communications network that is accessible to most of the population. The idea is that access for the majority now will lead to results later – demand for new services, a well-educated and internationally competitive workforce.

SADC's draft policy guidelines on universal access also suggest that policies include "good quality access to the Internet." Table 4.2 lists some of the developing countries that have included access to more advanced services as part of their universal access policy.

Table 4.2: Countries Including Access to Advanced Communications Services

Country	**Service**
Argentina	Access to the Internet and multimedia applications
Chile	Access to the Internet and multimedia applications and online government services
Colombia	Access to the Internet
Malaysia	Access to the Internet
Peru	Access to the Internet for villages
South Africa	Access to computers, the Internet and the whole Information Society
Uganda	Internet access projects for schools, NGOs, small scale commercial telecentres and Internet cafes at sub-district levels

LTA's strategy for universal access/service also includes access to the Internet:

- Rules and guidelines for the sector should emphasize the ability of networks to carry advanced communications services. This will ensure that a variety of services are available depending upon demand. It will also reduce the possibility of mandating services that have not been fully tested in the market

- Internet Points of Presence (POPs) should be established at each district capital to improve the quality and affordability of Internet services outside the nation's capital

- Telecentre projects should be promoted through low cost loans to individuals and organizations that present a viable business case

- Discounted tariffs for Internet services should be available to schools, clinics, telecentres and other community access centres.

4.3 Universal Basket of Services

The following services should make up the universal basket of services, which should be accessible to everyone, everywhere in Lesotho:

- Voice grade access (i.e. dial tone) that employs touch-tone signaling and is a single party service. Voice grade access can be supplied over a fixed or mobile network

- Access to low speed (i.e. basic) fax and data services. LTA defines low speed as speeds up to 64 kb/s.

- Access to long distance and international services

- Free access to emergency services (i.e. police, fire, ambulance)

- Access to directory services covering all listed subscribers (fixed and mobile) provided by at least one operator free of charge. LTA recommends that the public switched telephone network (PSTN) operator be responsible for providing this free service to its customers. Directories should include the telephone numbers of subscribers who have indicated that they wish to be listed. Subscribers should also have the right to verify, correct and remove entries.

  Directories should be published once a year in hard format but kept up to date electronically in a format that can be easily used by and communicated to subscribers. Mobile operators should provide access to directory information services at reasonable rates to their subscribers. The PSTN operator should also make its directory available to mobile operators at reasonable rates.

- Access to operator services.

All of the services mentioned above should be available on fixed and mobile networks 24 hours a day. To the extent possible, these services should also be available at public pay phone and telebureau/telecentre facilities.

4.4 Access to Public Pay Phones and Telebureaus

The penetration of both telebureaus (i.e. public telecoms facilities and services licensed to private individuals) and pay phones (typically supplied and operated by Telecom Lesotho (TL) is 0.05% of the population as indicated below in table 4.4. The location of these public facilities is also primarily in Lesotho's largest population areas. For example, there are 537 (54% of the total) telebureaus and pay phones in the district of Maseru. However,

there are only 8 pay phones and telebureaus in the district of Mokhotlong where approximately 91,453 people reside.

Table 4.4: Number of Telebureaus & Pay Phones in Lesotho (Source: LTA & TL, November 2002)

District	Town/Area	Telebureaus	Pay Phones	Population	Penetration
Leribe	**Leribe**	**60**	**22**	**370,364**	**0.02%**
	Hlotse	13			
	Leribe	19	11		
	Maputsoe	24	11		
	Sebothoane	4			
Mafeteng		**32**	**24**	**241,105**	**0.023%**
	Thabana Morena	6			
	Silioe	3			
	Motsekuoa	5			
	Matholeng	3			
	Mafeteng	15	24		
Maseru		**312**	**225**	**486,582**	**0.11%**
	Maseru – and surrounding areas	294	209		
	Matsieng	1			
	Korokoro	1			
	Morija	3	8		
	Roma	13	8		
Mohale's Hoek		**41**	**26**	**208,750**	**0.03%**
	Areas surrounding town	18			
	Mekaling	2			
	Mohale's Hoek town	21	26		

District	Town/Area	Telebureaus	Pay Phones	Population	Penetration
Mokhotlong		**4**	**4**	**91,453**	**0.01%**
	Mokhotlong	4	4		
Qacha'sNek		**3**	**9**	**81,230**	**0.01%**
	Qacha's Nek	3	9		
Quthing		**21**	**8**	**142,170**	**0.00%**
	Alwynskop	6			
	Moyeni & surrounding areas	15	8		
Berea		**80**	**67**	**305,626**	**0.05%**
	Khubetsoana	31	50		
	Lekokoaneng	3			
	Makhoroana	4			
	Mapoteng	4	4		
	Peka & Kolonyama	6	1		
	Sefikeng	3			
	Sekamaneng	10			
	Teyateyaneng	19	12		
Thaba Tseka		**9**	**15**	**136,602**	**0.02%**
	Mohale	2	8		
	Thaba Tseka	7	3		
	Katse		4		
Butha Buthe		**15**	**16**	**127,836**	**0.02%**
	Khabo	1			
	Khukhune	2			
	Butha Buthe own & surrounding areas	12	16		
TOTAL		**577**	**416**	**2,191,718**	**0.05%**

Given the current situation, the availability of public pay phones should be increased, particularly outside of Maseru, to ensure that telecoms services are available to all within a reasonable walking distance:

- In urban centres such as the capital of Maseru and district capitals, the number of pay phones should be at least one per 100 people

- In towns with 1,000 and more inhabitants, the number of pay phones should be at least one per 200 people

- In villages with 200 people and more, the number of pay phones should be at least one per 100 people

- Pay phones should be installed to maximize accessibility in terms of location, hours of operation and functionality for the disabled

- Pay phone operators must ensure that calling cards are freely available so as to facilitate the use of telecoms services.

This recommendation takes into account that the majority of Basotho, outside the national and district capitals, live in low-density population communities. Furthermore, there are many small clusters of people (i.e. groups of 20 to 50 inhabitants) living in rural areas that are not connected to basic infrastructure networks - water, electricity and roads. For this latter group, it is important to work with operators to ensure that there are towns or villages within a reasonable walking distance equipped with public pay phones so that even the most rural citizen has access to telecoms services. LTA seeks guidance on the definition of "reasonable walking distance" in Lesotho.

Recognising that large segments of the population will remain phoneless in the short

and medium term, LTA asks industry to determine the feasibility of making services like voice mail, SMS and Internet services available through public pay phones.

Keeping in mind that those with disabilities should not be left out of the Information Age, LTA seeks further advice from industry regarding the feasibility of installing payphones that are accessible to those with physical handicaps and special services for the blind. It also seeks guidance from those representing the disabled on where to place public pay phones so that they are within reach of this segment of the population.

4.5 Quality of Service

LTA is working with industry to set levels for quality of service and performance targets for all licensed operators providing public telecommunications services as indicated in table 4.5.

Table 4.5: Quality of Service Targets			
Service Indicator	**What it Measures/Requires**	**Operator**	**Proposed Target**
1. Order Completion	Ability of the company to provide new services or make changes to existing ones by the date promised	Fixed Line Mobile ISP	2 weeks 24 hours 24 hours
2. Percentage of Network Digitalisation	Level of digital versus analog systems in place	Fixed line Mobile	All exchanges should be digital; the deployment of new local loop infrastructure should be flexible so as to deliver digital services according to demand and 30% of the access network should be digital. All switches installed should be digital
3. Call Failure Rate Network Downtime	Number of calls lost Amount of time that customers cannot access the network	Fixed Line Mobile ISPs	25% call failure rate Downtime per cell site/billing platform/SMSC should not exceed 24 hours Downtime should not exceed 1 hour in a 24 hour period
4. Customer Reported Faults (including mean time between faults)	Reliability of the operator's network service	Fixed Line	75 faults per 100 lines per year is currently allowed.
5. Fault Repair	Ability of the company to repair faults within the committed time frame	Fixed Line	50% of all faults should be cleared within 24 hours and 75% within 72 hours as a near term goal. Current levels accepted are 40% within 24 hours and 55% in 72 hours.
6. Repeated Customer Reported Faults	Percentage of customer fault reports which occur within 30 days of the resolution of an earlier reported fault	All Operators	Should not exceed 5%
7. Complaint Handling	How promptly complaints are dealt with	All Operators	All complaints should be addressed within 48 hours and assigned a reference number
8. Billing	Accuracy of billing information.	All Operators	Billing mistakes should not exceed 5% of the total bills for any given billing period
9. Information Dissemination	Customers are informed about any changes to service	All Operators	60 days notice should be given for any changes to service, including changes to tariffs, once approval has been granted from LTA

4.5 Affordability

LTA is currently reviewing the tariffs of both fixed and mobile operators with the goal of ensuring that they are affordable to the majority of subscribers as well as stimulating traffic growth. The trend internationally is to rebalance tariffs so that they reflect the cost of providing a particular service. This strategy tends to result in:

- Increased rates for connection, monthly rental and local calls
- Lower rates for long distance and international calls
- Lower rates for leased lines.

4.6 Investment

Increasing capital investment in the sector is one of the government's top priorities. LTA believes that the best ways to attract investment are to:

- Create and maintain a fair and transparent regulatory environment that is free from political pressure. Rules that are developed in a transparent environment give investors greater confidence in the regulatory process. A regulator that has operational autonomy from government helps to alleviate investor concern about the stability of the regulatory environment and thus encourages investment

- Promote a technology neutral policy. A policy of technological neutrality allows operators to invest in technology based upon cost effectiveness and speed of delivery. Wireline facilities make sense in some places, while satellite, cellular and terrestrial wireless infrastructures may work better in others. The general effect of such polices is to spur technological innovation as well as improve quality of service and lower prices for consumers

- Issue licences to new operators. LTA acknowledges that Telecom Lesotho has exclusivity for the provision of national and international basic voice and basic data services until February 2006. However, services that are not covered by exclusivity and where supply cannot currently meet demand can be met by new entrants

  For instance, competition in the supply and operation of public pay phones is likely to speed access to telecom services to the Basotho population. VSAT operators can also do much to lower the high transmission costs that ISPs are currently forced to pay, which they in turn pass onto consumers with the result of lowering demand for Internet services.

4.7 Timeframe

This proposal is for the period 2003/05. Once finalised, this universal access/service strategy will be effective starting on 1 April 2003. In 2005, a review will take place and LTA envisions that the strategy will be amended to take into account the fully competitive environment scheduled for early 2006.

Section 5: Funding Strategy

Successful funding strategies balance the interest of operators and policy makers. Key success factors include:

- Selecting a funding mechanism that matches the environment. There is no one perfect funding mechanism. Each country must decide which funding mechanism is appropriate for ***its*** unique environment based upon key economic indicators, level of market liberalisation and government policy goals

- Promoting a level field. No one operator, or group of operators should bear an unfair burden. Incumbents should not bear all of the burden in meeting universal service goals if the costs are high. On the other hand, efforts must be taken to ensure that new entrants contribute according to their market share so as not to jeopardise their financial viability

- Creating incentives not burdens. It is the regulator's job to ensure that the right incentives are in place to encourage operators to meet goals. For example, some countries have offered tax exemptions on equipment imports for operators who undertake to roll-out rural networks as well as lifting foreign exchange restrictions. Others have designed competitive bidding processes to grant subsidies and low interest loans to operators that demonstrate efficiency and innovation in the provision of universal services.

5.1 A Funding Strategy for Lesotho

A review of the universal service and access policies worldwide indicates that countries in initial stages of liberalisation and with low teledensities, i.e. below 10 percent

implement two types of funding mechanisms:

5.1.1 Option 1: Licence Obligations

Licence obligations have been used as a funding mechanism to support national coverage and universal access goals in countries where network coverage is chiefly limited to urban areas. Regulators issue licences to new entrants with geographic coverage obligations. These obligations typically specify coverage areas required and/or the percentage of lines in concession areas that must be rural. In exchange for build-out requirements, operators are granted a period of exclusivity and/or assurance that the regulator will not licence additional public mobile or fixed network operators for a specified period.

The advantage of this funding mechanism is that it relieves government of spending its own limited resources to help offset the high cost of build-out requirements. Another added advantage is that operators are not burdened with an additional universal service charge at a time when they are just establishing their companies in the market place. Thus, company resources can be dedicated to network rollout and improving quality of services. On the other hand, if licence obligations are too prescriptive and do not take into account reasonable returns on investment, they can place an undue burden on industry and may jeopardize financial viability.

5.1.2 Option 2: A Universal Service Fund

Universal Service Funds (USF) for markets undergoing initial liberalisation are more typically established after national coverage has been achieved. Hence this funding mechanism focuses on offsetting the costs of serving uneconomical and low profit areas outside of urban centres. More recently, universal service funds are being established to help support the rollout of Internet services.

Universal service funds are generally financed from:

- National budgets. Government earmarks annual funds to be used to support the designated universal service operator (USO) with its network rollout obligations, as is the case currently in Botswana. Or, government earmarks annual funds to be granted to operators through a competitive bidding process as is the case in Chile

- Operators through a percent of eligible revenues. In environments where there has been competition in long distance and international services, USOs have traditionally been supported through access deficit charges and surcharges to interconnection. Thus, long distance and international operators paid a surcharge to interconnect to the local access network. This surcharge helped offset the deficit incurred by the USO in order to meet universal service obligations mandated by government

  In fully competitive environments, where local services are also open to competition, access deficit charges and surcharges to interconnection are being replaced with a percentage of eligible revenue tax on all operators as the most equitable mechanism for USF contributions. This is because revenues can be allocated to the most efficient provider of universal services and thus provides an incentive for new entrants to enter the local access market. Revenues can also be used to support access to the Internet and other advanced communications services

- Subscriber Charge. Subscribers pay a universal service charge as part of their monthly telephone bill. In the US, for example, subscribers pay a variety of surcharges, which support the local access provider's access deficit, low-income subscribers and special services for the blind.

The key advantage of this mechanism is that it rewards/encourages operators to meet access targets. Key disadvantages include that government may not have surplus

revenues to spend on telecoms and operators and subscribers may find an additional charge unsupportable.

5.1.3 Option 3: Licence Obligations and a Phased in Universal Service Charge

This option considers that in 2006 when LTA envisions a USF will be necessary to encourage operators to provide services in high cost areas, funds will not be immediately available. Thus, this option proposes that in addition to roll-out obligations, operators be required to pay an additional charge that is phased in during 2003/05.

The advantage of this proposal is that it ensures that funds are available in 2006 to support universal access goals. The disadvantages of this option is that there is a danger of both overcharging as well as undercharging operators. Until a national network is in place, it is difficult to determine the cost of serving uneconomical areas and customers.

5.2 LTA's Recommendation

LTA invites comments on all funding options described above. However, we recommend that Lesotho pursue Option 1 at this point in time because:

- The Government of Lesotho does not have adequate financial resources to support the telecoms industry

- Industry cannot afford an additional financial burden where the cost of network roll-out is high and where the ability to attract financing for telecoms is constrained in today's marketplace

- Subscribers in Lesotho can barely afford telecom services let alone a universal service charge

- A profitable telecommunications sector attracts investment. Companies make investment decisions based upon the stability of a given market and their ability to make a return on investment within a specific time period. Therefore it is LTA's prerogative that operators should not be unduly burdened particularly at the time when they are making significant capital investments (e.g. the planned CAPEX of TL, VCL and EEL for 2002/05 is approximately M1,032.4 million).

Furthermore, Option 1, i.e. licence obligations, has the greatest potential for fostering public/private partnerships for achieving access goals in the short term. Thus, LTA believes its efforts are best applied by ensuring that operators:

- Design a national network that covers not only high density population and commercial centers but enables all Basotho to have reasonable access to telecom services

- Provide a universal basket of high quality services throughout the country

- Deploy state of the art technologies, which enable advanced communications services.

With these objectives in mind, LTA proposes that:

- No additional universal service charge be levied against operators during 2003/05

- Licence obligations for fixed and mobile operators be used as the mechanism to ensure that the whole country is covered by a telecommunications network by the end of 2005

- LTA and the Ministry of Communications work together to launch a pilot test project for the roll-out of telecentres in each district capital as a starting point

- A universal service fund be established in early 2006 to support telecentres and to provide incentives for operators to serve high cost areas.

5.3 License Obligations

LTA's proposal is that both fixed and mobile operators should be required to meet specific rollout obligations. Although Telecom Lesotho's licence does contain rollout obligations for rural and urban lines, the licence itself does not specify ***exactly*** where rollout should occur. Econet Ezi-cel and Vodacom Lesotho are also required to fulfill system expansion requirements per their licence agreements. However, these requirements have not been specified to date.

5.4 Telecentres

LTA proposes that funding for a pilot project to test the feasibility of rolling out commercially viable telecentres in district capitals be obtained through public/private partnerships. To demonstrate the government's commitment to the dissemination of advanced communications services to the people of Lesotho, LTA recommends that:

- LTA and the Ministry of Communications set aside initial seed capital from their own internal budgets to help support the project

- The Government of Lesotho offer tax incentives to companies that donate equipment and expertise needed to get the project up and running. An example of an attractive tax incentive for industry would to exempt participating companies from paying import duties on telecoms equipment

LTA welcomes any additional ideas for how to finance this initial project. If the project is successful, LTA envisions that a universal service fund will be established in 2006 to grant low interest loans to individuals and organizations that present credible business plans for managing and operating telecentres.

5.6 Working Groups

If the stakeholders agree to the strategy discussed herein, LTA would like to establish two working groups to assist with its implementation:

1. Network Rollout Working Group. This group will be tasked with coming up with a blue print for rolling-out fixed and mobile networks so that everyone has reasonable access to telecoms services by the end of 2005. Suggested membership includes Telecom Lesotho, Vodacom Lesotho, Econet Ezi-Cel, the Ministry of Communications, LTA, representatives of those with disabilities and any other party that has a legitimate interest.

2. Internet Access Working Group. This group will be generally tasked with generating ideas to improve the quality and accessibility of Internet services in Lesotho. Specifically, they will be tasked with helping LTA to design and monitor a pilot test project to roll-out multifunctional telecentres in each district capital. Suggested membership includes Telecom Lesotho, Leo, Square One, Adelfang, Quadrant, the Ministry of Communications, Ministry of Education, LTA and any other interested party with a legitimate interest.

Appendix A: Country Overview

Lesotho commonly known, as the "Mountain Kingdom" is a landlocked country completely surrounded by the Republic of South Africa. This small country of 30, 355 square kilometers has one of the most dramatic landscapes in its region. Mountains, commonly referred to as highlands, cover 70% of the country. The highlands are found along the eastern front of the country and the lowlands or valleys are along the western front. The southern and northern regions of the country have a combination of highland, foothill and lowland regions.

Lesotho is divided into ten districts for administrative purposes, namely Butha-Buthe, Leribe, Berea, Maseru, Mafeteng, Mohale's Hoek, Quthing, Qacha's Nek, Mokhotlong and Thaba Tseka. Maseru is the capital and the only city in the country. Each district capital is classified as a large town with populations ranging from approximately 4,300 in Mokhotlong to almost 49,000 in Teyateyaneng. There are some 1,000 villages and an unknown number of small population clusters of 20 to 50 people scattered around the country. The latter population group is typically found in remote areas among the foothills, isolated from primary infrastructure facilities such as roads, electricity and water. Consequently, connecting these small population clusters with telecoms services presents a special challenge for government and the telecoms industry.

The population is estimated at about 2.2 million with an annual growth rate of 2.2%. Approximately 60% of the population lives in the lowlands - the areas in and around Maseru.

Lesotho has been identified as a Least Developed Country (LDC). The reduction of poverty and improving access to education, safe drinking water, sanitation and nutrition are key concerns of government. The government has also launched several reform projects aimed at stimulating the economy including: the Lesotho Utility Reform Programme (LURP), Health Reform Programme (HRP), Agricultural Sector Investment Programme (ASIP), Education Sector Development Programme (ESDP) and the Financial Sector Reform Programme (FSRP).

The economy has been growing gradually since 1998 due to increased construction activity, manufacturing and government programmes that encourage private sector participation. According to the Central Bank of Lesotho, GDP grew from 2000 to 2001 by 3.5 percent. For 2001, GDP per capita was US$296 and GNP was US$365 with average annual inflation at 11.08 percent.

According to the 2001 National Accounts (produced by Bureau of Statistics), the contributions of the telecoms sector to the economy (9.1% of GDP) have not been impressive in the last decade. After liberalising the market in 2000, the government expects contributions to GDP from telecoms to increase substantially.

Appendix B: Market Overview and Current Status of Telecoms Development in Lesotho

The Government of Lesotho (GOL) privatised the national incumbent operator, Lesotho Telecommunications Corporation, in November 2000 to encourage private sector investment and participation in the sector. A consortium (Mountain Communications) comprising Econet Wireless International (Zimbabwe), Eskom Enterprises (RSA) and Mauritius Telecom purchased a 70% controlling stake in the former parastatal and the company was renamed Telecom Lesotho (TL).

In a parallel track, the GOL published the Lesotho Telecommunications Authority Act 2000 that established an independent regulator, the Lesotho Telecommunications Authority (LTA), for the telecommunications sector charged with promoting competition, advancing universal service/universal access, and protecting consumer interests among other things.

The terms of TL's privatisation agreement provided for a five-year term of exclusivity over basic voice, basic data and leased line services. In February 2002, the LTA Board approved TL's application for exclusivity for international basic voice and data services. In return for the exclusive privilege to provide these services, TL is required to meet rural and urban rollout fixed line targets as well as public pay phone targets as indicated below in tables 1, 2 and 3.

Table 1: Numbers of fixed lines targets per year					
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Total	0	25,000	30,000	40,000	50,000
Urban	0	23,000	27,000	36,000	45,000
Rural	0	2,000	3,000	4,000	5,000

Table 2 Public phone targets per year (Wireline and fixed WLL)					
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Public Telephones	495	715	935	1,155	1,375

Table 3 Bureau Services (Wire line and fixed WLL)					
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Public Telephones	450	650	850	1,050	1,250

Competition in the telecoms sector is allowed in the following areas:

- Mobile cellular
- Radio Paging
- GMPCS (Global Mobile Personal Communications by Satellite)
- Data Communications (i.e. advanced data services) such as the Internet, DTI, email
- VSAT (Very Small Aperture Terminals)
- Pay Phones and telebureaus
- Customer Premises Equipment importation, manufacture, distribution, installation and maintenance.

Two mobile operators have been licensed to provide mobile telephony services. Vodacom Lesotho (VCL), 88% owned by Vodacom of South Africa and 12% owned by Sekhametsi Investment Consortium, commenced operations in June 1996. It was granted exclusivity for mobile services for five years, which came to an end in June 2001. VCL's licence has been renewed without any exclusivity for an additional 15 years.

In October 2001, LTA issued a second mobile licence to, Econet Ezi-Cel Lesotho (EEL) a subsidiary of TL for 15 years. EEL commenced operations in May 2002. Neither of the two mobile operators were assigned network coverage obligations.

For a complete list of licences issued since LTA was established in June 2000, see Table 4 below.

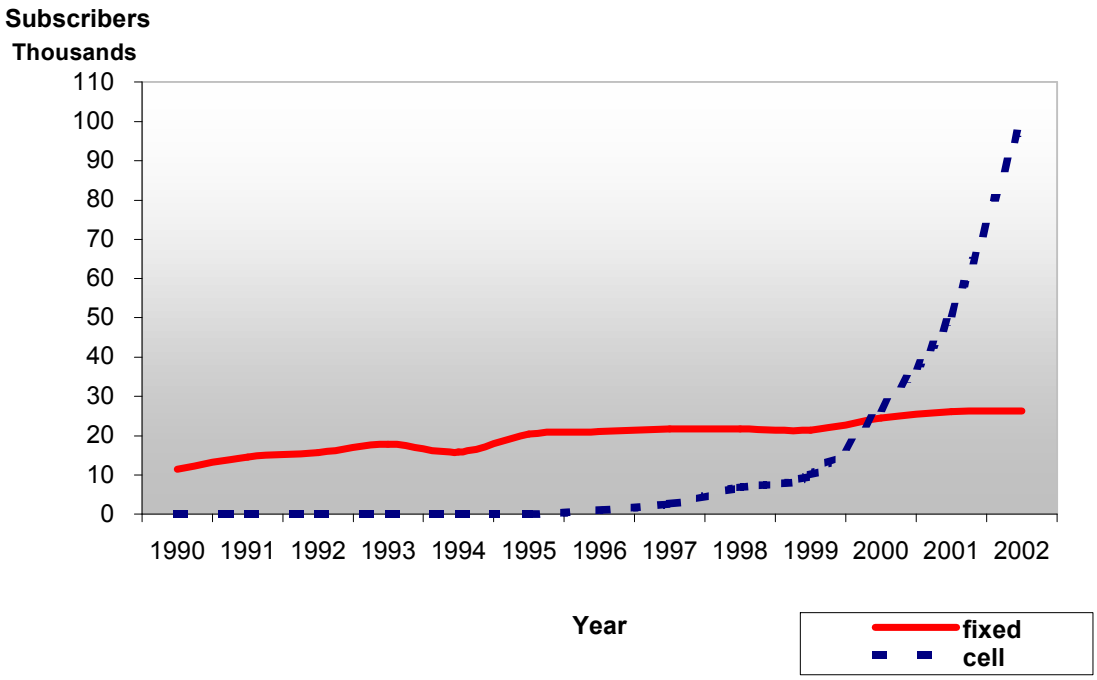
Table 4: Telecommunications Licences Issued

Operator	Type of Telecommunications Licence
Telecom Lesotho	PSTN
Vodacom Lesotho	Mobile Cellular
Econet Ezi-Cell	Mobile Cellular
Bethlehem Technologies	Data Communications, ISP
Lesotho Office Equipment (LEO)	ISP
Adelfang Computing	ISP
Square One Comnet	ISP
Supreme Furniture	Private Network, VSAT
UNDP	Private Network, VSAT
Chinese Embassy	Private Network, VSAT
577 private individuals	Telebureaus

Source: LTA, November 2002

Liberalisation of the market has led to an increase in both fixed line and mobile subscribers. Prior to liberalisation, LTC had approximately 20,000 subs with a penetration rate of 0.95% lines per hundred people. The only mobile operator, VCL, had just 6,600 subscribers. Figure 5 shows the growth in fixed and wireless subscribers since the market was liberalized in 2000.

Figure 5: Growth in Fixed and Wireless Subscribers



As the figure above indicates the majority of subscriber growth has occurred in wireless services with approximately 100,000 subs by October end 2002. Fixed line subscribers have increased marginally from 21,725 in 2000 to approximately 26,240 by October end 2002.

Subscriber growth for both fixed and wireless services is primarily concentrated in and around the district of Maseru. Many areas of the country and roadways still remain uncovered by both types of networks.