Communications Sector Liberalisation Framework

Consultation Paper

2nd November 2006

EXECUTIVE SUMMARY

This consultation document seeks to map out the future of the communications market in Lesotho following the expiry of the exclusivity period of Telecom Lesotho in February 2007. The post-exclusivity period marks an important landmark in the development of the communications sector in Lesotho.

In the past six years following the liberalization of the market, Lesotho realized a significant growth in telecommunications services where the mobile operators attained 13% coverage of the population while the fixed operator attained 2.9% coverage. While this growth is commendable, certain challenges still remain given the rapid escalation of technological developments in the communications sector which have been embraced in many jurisdictions and are yet to be put in place in Lesotho. The current regulatory framework is archaic given the dynamism of technology in the communications sector as a result of convergence of technologies. Lesotho cannot afford to lag behind and should be up to speed with developments in the information society. The document is structured in a manner that ensures adherence to best international practices and regional aspirations espoused in the NEPAD e-Africa Commission's recommendations on communications regulation while ensuring that Lesotho's peculiar circumstances are taken into account.

The document attempts to usher in the era of full competition in the communications market by introducing competition in services that were within the exclusivity domain of Telecom Lesotho while enabling infrastructure development for various services open for competition. The overall objective being to enable the consumer to obtain communications services at affordable prices while ensuring

that the growth of the industry is realized. It also attempts to meet the aspirations of the Government as reflected in the 2005 ICT Policy on attainment of universal access for the Lesotho populace. An attempt has been made in the document to ensure that existing operators would not suffer prejudice resulting from liberalization and competition. In fact, the document encourages the existing operators to diversify their operations and be innovative during this era of liberalization. It is worth noting that Internet access remains one of the greatest challenges faced by Lesotho. The document has addressed this issue and it is hoped that the existing operators as well as new entrants will be in a position to deploy infrastructure to enable Basotho to obtain optimal benefits in this regard.

It is our fervent hope that the existing operators and the new entrants will take full advantage of the benefits which will accrue from this era of liberalization by introducing and deploying technologies for their benefit as well as for the benefit of the consumer and the country as a whole.

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1. Introduction

Liberalisation of the telecommunications market in Lesotho began when the Government of Lesotho (GOL) adopted "The Lesotho Telecommunications Policy of 1999". The policy was crystallized and put into effect by enactment of the Lesotho Telecommunications Authority (LTA) Act of 2000, and repeal of the Lesotho Telecommunications Act of 1979.

The highlight of the liberalisation effort was the privatization of the fixed network operator, the Lesotho Telecommunications Corporation (LTC), and establishment of the regulator, the Lesotho Telecommunications Authority (LTA). The privatized incumbent, Telecom Lesotho (TL), was given exclusivity rights for a period of five years, expiring on the 8th February 2006. The exclusivity was subsequently extended by one year, shifting the expiry date to 8th February 2007. Exclusive rights are in respect of:

- Basic Voice Services within Lesotho and internationally;
- Basic Data Services within Lesotho and internationally;
- Leased Line Services within Lesotho only.

At the time of privatisation, Vodacom Lesotho (VCL) was the only mobile operator having been licensed in 1996. In October 2001, VCL was re-issued with a new licence as required by the LTA Act. A licence for a second mobile cellular operator was issued in October 2001, as part of the privatization transaction, to a subsidiary of TL trading as Econet Ezi-Cel Lesotho (EEL). EEL commenced operations in May 2002.

The market is therefore made of three network operators, with two (VCL and EEL) providing mobile voice services while the other (TL) provides fixed voice services, data services and network services.

A satellite earth station operator, Bethlehem Technologies Lesotho (BTL), was licensed in October 2001 to provide mainly bandwidth to Internet Service Providers (ISPs). A number of ISPs are also in operation and are obliged to source bandwidth from either BTL or TL.

Broadcasting services are provided by eight sound and two television broadcasters. The evident limitation in this front is the absence of broadcasting signal transmission service. This limitation has brought about a situation whereby content providers are self-provisioning in respect of transmission, and in the process media pluralism is only enjoyed in some select areas in the lowlands.

The purpose of this consultation paper is to invite views and comments regarding the liberalization framework that LTA plans to put in place when TL's exclusivity rights in the designated services expire in February 2007. The proposed framework is aimed at introducing competition in areas that have been subject to exclusivity so that the needs of consumers in this country can be met. Convergence of telecommunications, information technology and broadcasting on one dimension, and fixed and mobile on another, has been taken into consideration in the development of this framework.

2. Objectives

The proposed liberalisation framework aims to achieve the following objectives:

i. Introduction of competition in services that were previously provided by TL on exclusive basis;
ii. Enable development of infrastructure capable of multiple services, including broadcasting transmission; and

iii. To enable development of access networks capable of providing diverse services.

3. Proposed Framework

The proposed liberalisation framework provides for competition while fostering a specific market structure. Universal access should always be kept in mind when either policy or regulatory settings change. Initial fees payable for participation in the provision of services that are currently provided on exclusive basis should not be prejudicial to either the incumbent or new participants. There should be a change in approach employed for resource management to accommodate new services and participants. In order to optimize value of investment by different operators, sharing of facilities should be encouraged.

3.1. Levels of competition

Full competition is ideal for any market that is being liberalised. However, it is quite complex to determine the nature of competition that will emerge from any liberalisation, and in this case post-exclusivity liberalisation. For the purposes of this exercise, liberalisation entails:

i. removal of regulatory constraints that, either directly or indirectly, prevent participation in the provision of services that are currently provided by TL on exclusivity basis; and

ii. setting up of a regulatory regime within which such services shall be provided on a competitive basis.

Competition can be either infrastructure or services based. Despite the complexities of predicting the nature of competition that will emerge from liberalisation, it is important that an attempt is made to foster the kind of competition that will not be divorced from Lesotho's realities and aspirations. Paramount of those aspirations being:

- need for investment on infrastructure;
- availability of access (and service at a later stage) to a highest percentage of citizenry;
- variety and affordability of services; and
- General consumer satisfaction.

Market liberalisation should not reserve any level of the market for any particular provider, but there should be an encouragement for collaboration and sharing of facilities in a transparent and equitable basis. That is, infrastructure sharing should be encouraged due to its efficiency and cost effectiveness. It is generally agreed that, had the mobile operators adopted a facilities sharing approach in their roll-out efforts, more coverage and access could have been attained with the similar amount of investment by the two companies. Sharing also tends to minimise the adverse impact of installations on the environment.

With this liberalisation, it is encouraged and expected that the existing network operators will compete more directly with each other at the services level. It is anticipated that this process will usher a new era where technological challenges shall be the only limitation in the provision of voice, Internet access and broadcasting services.

The benefits of competition need not be over-emphasized, but amongst many the following have been reaped in other markets and are accordingly expected for Lesotho:

- reduced prices brought about by economically efficient tariffs;
- more efficiency to have reduced prices while making return on investment; and
- Deployment of the most appropriate technologies in providing services.

These telecommunications specific benefits will in turn stimulate the entire economy by reducing the costs of doing business, thereby making Lesotho an attractive investment destination.

It is proposed that full competition be allowed in all communication services. No quotas are to be put for market players for any service.

3.2. Universal Access

Universal access generally refers to the availability and affordability of basic services by the majority of the population. The most basic communication services in the context of Lesotho are voice telephony, followed by internet access.

Universal access is generally meant to achieve:

- Economic productivity and growth;

- The promotion of political and social cohesion through the integration of isolated communities into mainstream society; and
- Elimination of disparities between the "information rich" and the "information poor".

At the moment a large part of the country is enjoying access from mobile operators. By the very nature of mobile licences, services that can be lawfully provided by mobile operators are limited. The effects of this limitation are worst felt in areas where the only available access is from mobile operators.

This limitation should be addressed through liberalisation. In that manner network capabilities shall be the only limitation as regards services provided by mobile operators, meaning that there will be more products in the basket of services that are a subject of universal access.

3.3. Fees

In order to attain the levels of competition outlined in item 3.1 above, it is envisaged that there will be new participants in the provision of services that are currently provided by TL on exclusive basis. These participants may either be existing operators or new entrants. Fees to be payable, for such participation, should be determined taking the following factors into consideration:

- Fees paid by TL for its licence, and noting that such fees included exclusivity rights;

- Such participation will add value to the business of the participant; and
- Competition will be attained through such participation.

In this way an attempt will be made to strike equity between the incumbent and new participants. Consequently, neither the incumbent nor new participants may be prejudiced by this liberalisation endeavour; at least not on account of fees.

3.4. Resources

Liberalisation has the effect of introducing a variety of services into the market. Some of these services require utilization of the numbering and spectrum resources. Under the current dispensation, these resources were made available to existing operators in order to facilitate provision of services without strict efficiency requirements.

i. Spectrum

In order to accommodate new services, there is a need to introduce new regulatory measures in respect of spectrum use. These changes should achieve the objective of efficiency thereby allowing optimal utilisation of the resource.

At times, use of spectrum pricing policy has ensured efficient use of spectrum – both for transmission and access networks. However successes attained by use of spectrum pricing should not blind us from the fact that it may adversely affect the price of the end product provided to the customer,

in which case it defeats the objective of affordability, and may tilt competition in favour of the more established and resourced operators against small operators or new entrants – hence stifling of competition. This approach may also lead to too much resources being taken out of the sector in the form of spectrum fees. Therefore, it should be considered in conjunction with other measures.

The regulator may employ a policy of spectrum redeployment and rationalisation. This policy ensures efficient use of spectrum while not pricing it beyond affordability of some small players in the market. Under this policy spectrum pricing is not used to foster efficiency but only reflects the costs of regulation.

Spectrum assignments should be made strictly for the purposes of providing specific authorised services. In this way spectrum rights should not be held for spectrum trading.

ii. Numbering

Under the current numbering plan, each of the three operators has been allocated an entire level of numbering resources. At the time of this allocation, there were no imminent risks of numbering limitations. However, with numbering needed for other new services, there is need to reconsider the current allocations. This should be done taking into account the following renowned principles:

- Numbers should be allocated in blocks of modest size;
- Under-used numbering space should be reclaimable; and

- Some spare numbering should be left for the unforeseen.

Numbering change is not necessary at the moment. There is only a need for rationalisation, applying the above principles, in order to be in a position to deal with numbering requirements that are likely to be brought about by the envisaged liberalisation.

3.5. Market Structure

With the expiration of exclusivity rights granted to TL, comes a need to formulate a regulatory framework that shall determine the nature of liberalisation in respect of all market segments that will be open for competition. These market segments are:

i. International gateway

ii. Infrastructure – all network elements

iii. Services – voice and data.

Liberalisation of these market segments is expected to have variegated impact on the realization of the objectives of this framework as set out under Item 2 above. However, it is critical that all efforts be made to ensure that liberalisation contributes to the maximum towards the attainment of these objectives.

i. International Gateway

Currently TL has exclusivity for provision of international gateway in respect of basic data and voice services. However, TL competes with BTL, albeit to a limited extent, for international gateway on Internet access.

All outbound and inbound international voice traffic generated by and destined to both VCL and EEL use the international gateway provided by TL. TL has recently, probably in anticipation of the end of exclusivity, reduced rates for international calls. It is expected that competition will bring about reduction in prices while improving quality of service.

Liberalisation of the international gateway services may be attained through various options, which can be summarized as:

1) Licensing of the second fixed network operator;

2) Authorize international gateway to any operator so requiring; or

3) Authorization of the mobile operators to provide their own gateways.

The first option would be problematic due to the trend towards convergence. The second one would work, but not with as much ease as option 3, owing to the fact that existing mobile operators already have established customer base. Hence, of the three options, the third option is proposed for implementation immediately at the end of TL's exclusivity.

If the third option is taken, the existing mobile operators will compete directly with TL on international voice services, and will compete with TL and BTL on international bandwidth sourcing for internet access. Retail prices of international calls might be brought down quite significantly.

The only major risk is the possibility of mobile operators not passing on due benefits of reduced international traffic costs to customers and retaining such savings as normal profits. This matter should be addressed fully before any authorisations are made.

The importance of internet access in the modern day life, both private and business, and of its limited availability in Lesotho, renders it imperative to make special dispensation as regards internet access. Certain classes of ISPs should be authorized to own infrastructure and compete with network operators on the sourcing of international bandwidth. That makes the international bandwidth sourcing market more liberalised than the provision of the international voice services.

ii. Infrastructure

The current regulatory dispensation on infrastructure is such that all operators are allowed to self-provision in all aspects of network elements. However, only TL is allowed to lease network elements and provide leased line services to end users. In a way, there is limited competition on infrastructure. Authorising mobile operators to lease network elements will remove all regulatory interventions limiting infrastructure competition, thus

leaving it to market forces. It is expected but yet to be seen whether such development will result in reduction of leased lines rates.

Infrastructure liberalisation is encouraged because it brings about network innovation and creativity and has the potential to ignite investment competition. The most cost-efficient network has competitive advantage as it enables provision of services at attractive rates.

Traditionally, lack of competition at the backhaul networks produced very little product differentiation. However, with convergence, access networks define such differentiation. This means that while TL might continue to be the main backbone network service provider, a vigorous product based services competition is attainable.

Liberalisation carries with it the possibility of infrastructure duplication. This duplication should be considered positively as it provides redundancy that is essential for reliability. The new framework should allow investment in infrastructure where it is commercially viable, while allowing collaboration through sharing and leasing where necessary.

Given Lesotho's circumstances, there should be infrastructure competition to the extent that services competition dictates – which will largely be on innovations and technologies deployed for access networks. There should be efficiency driven collaboration in respect of backhaul networks with no exclusivities granted to any operator.

iii. Services

The services market is structured such that TL has the right to provide all telecommunications services with the exception of mobile voice services, which it does indirectly through its subsidiary. On the other hand, mobile network operators are restricted to the provision of mobile services, and connections to PABXs which is a fixed voice service; this being a historical right acquired by VCL under a licence issued in terms of the Telecommunications Act of 1979.

The exclusivity clause in TL's licence deals with data and voice services separately, but technological convergence makes such separation unnecessary. For the present purposes, data services should be provided by all voice service providers to the extent of their network capability. Technological convergence has brought about the ability to provide various communications services such as data, image, voice and video over single infrastructure (both transmission and access) and terminal equipment.

Advances in technology have dismantled the notion that different services **must** be obtained from different providers or provided using discrete networks. Regulatory acceptance of these changes is key to dealing with service provision challenges. It will also help attain higher levels of network efficiency. These improvements should be more embraced in Lesotho where some areas are not reachable with the conventional fixed networks.

Liberalisation of voice and data services is expected to bring about competition in the market. An area that is expected to benefit from this is internet access services. While big operators will be at liberty to provide

internet services, it is important for small operators to be given a fair opportunity to participate in the market. To achieve this objective, it is proposed that ISPs be allowed to self-provision, both in terms of international bandwidth and in the last mile in line with an order made by the LTA Board on 16 August 2004[1]. The approved classification is shown in the Annex.

Liberalisation of voice services should be technological convergence oriented. In that way the distinction of voice services in terms of mobility will just be product differentiation.

Options for effecting voice liberalisation are:

1) allowing VCL to participate in the fixed voice services on equal footing as TL – that will in turn require allowing TL to merge with its subsidiary EEL; or

2) licensing another fixed network operator to compete with TL, while leaving VCL and EEL to compete on mobile voice services;

3) licensing a new operator that will provide both mobile and fixed services.

Option 1 supports an already existing dispensation where TL uses technology that is conventionally mobile to provide services. Maximum utility of

[1] Full document available on: http://www.lta.org.ls/Consultations/orders_and_resolutions.html

existing networks would be attained while all services would be provided on competitive basis. However, its implementation is dependent on the business aspirations of VCL, particularly as regards convergence.

Option 2 advocates for the traditional way of liberalising voice services. This option does not embrace operational convergence to the extent that it puts emphasis on services as either mobile or fixed.

Option 3 will allow service convergence and enhance competition. While this may also be a good option, it may not be realizable immediately after expiry of exclusivity.

4. Summary of Proposals

i. Competition

The telecommunications market in Lesotho should be fully liberalised, allowing competition in all market segments. There should be no quotas set for the number of participants at any service. It should be left to prospectors to determine the viability of the market before entering it.

ii. Fees

Operators should pay initial once-off fees for the right to provide services that have been exclusive to TL. Initial once off fees should be set in a way that does not prejudice either TL or new participants.

iii. Resources

Resources (spectrum and numbering) should be rationalized in such a way that they support competition while prices to the consumers remain affordable.

iv. International Gateway

All network operators and some ISPs should be allowed to operate International Gateway.

v. Infrastructure

Network operators should be allowed to lease network elements to each other and to end users where possible. Some ISPs should also be allowed to self- provision.

vi. Services

The voice and data services market segment should be fully liberalized and there should be no distinction in terms of service provision between mobile and fixed services.

5. Implementation

A phased implementation of this framework is planned. This is essential to ensure that competition in hitherto exclusive service is allowed immediately when exclusivity ends, while the current regulatory framework is still in place. The second phase deals with the development of a unified/converged licensing system.

Phase 1

The first phase will involve:

a. Amendment of existing licences to allow licensees to provide services which are currently provided on exclusive basis.

b. Determination of once-off fees payable for (a) above.

c. Rationalisation of resources to meet new demands. Rationalisation of resources is needed urgently in respect of radio spectrum. The process is expected to be completed in May 2007.

It should be noted that existing operators will have to apply for amendment of their licences if they wish to be authorised to provide any services that are subject to licensing/authorization, other than those provided for in their licences. The due process for licence amendment will be followed before any authorizations can be granted.

It is recommended that no new network operator licences be issued until a new policy and legal framework that fully support convergence are in place.

Phase 2

Development of a converged/ unified licensing regime. Time frames for this will depend on enactment of new legislation that fully supports convergence.

Glossary

Access networks

Refers to a part of a communications network which connects subscribers to their immediate service provider's core network.

Authorization

The granting of permission by the Authority for the provision of communication services or for the use of resources such as numbering and radio frequency spectrum.

Backbone

Refers to a set of facilities that provide paths that local or regional networks connect to for long-distance interconnection in a wide area network.

Broadcasting

The distribution of communication signals to a number of recipients belonging to a large group of people**.**

Convergence

Refers to the ability to provide a range of services over a single network, such as the so-called "triple play."

Exclusivity

Rights given to an entity to provide services exclusively in a market. Other operators are prohibited from directly competing in the same space.

Incumbent

Refers to the telecommunication enterprise that currently has exclusive rights in designated service, that is, Telecom Lesotho;

International bandwidth

It also referred to as *International internet bandwidth.* It is network capacity on data links which cross international political borders. In this case, it is capacity linking Lesotho to other countries.

International gateway

Refers to international telecommunication services (see LTA ACT 2000).

Internet access

The means by which users connect to the Internet.

Internet

The worldwide, publicly accessible network of interconnected computer networks that transmit data by packet switching using the standard Internet Protocol (IP).

Liberalisation

Relaxation of restrictions in regulatory restrictions concerning the provision of communication services

Network Infrastructure

An integrated system of facilities which comprise the facilities used to provide one or more telecommunication services;

Network service provider

The equivalent to "public telecommunication services provider" which is defined in the ACT

National numbering Plan

This refers to the national implementation of the international E.164-numbering plan where a numbering plan specifies the format and structure of the numbers used within that plan. It typically consists of decimal digits segmented into groups in order to identify specific elements used for

identification, routing and charging capabilities, e.g. to identify countries, national destinations, and subscribers.

A numbering plan does not include prefixes, suffixes, and additional information required to complete a call.

PABX

It is the acronym for Private Automatic Branch eXchange also called PBX or is a telephone exchange that is owned by a private business, as opposed to one owned by a telephone company

Services

That which customers buy from public telecommunications service providers.

Spectrum redeployment (or refarming)

Refers to is a combination of administrative, financial and technical measures aimed at removing users or equipment of the existing frequency assignments either completely or partially from a particular frequency band. The frequency band may then be allocated to the same or different service(s). These measures may be implemented in short, medium or long time-scales.

Transmission

The transfer of information from one point to one or more other points by means of signals.

Note 1 - Transmission can be effected directly or indirectly, with or without intermediate storage.

Note 2 - The use of the English word "transmission" in the sense of "emission" in radiocommunication and of "sending" is deprecated.

Unified/converged licensing system

A system of authorising service provision whereby licences are designed to cover a wider scope of services that have traditionally been licensed separately.

Universal access

The ability of all people to have an opportunity in using basic communication services, regardless of their geographic location or disability or economic circumstances.

Annex

CLASSES OF ISPs AS APPROVED BY THE BOARD ON 16 AUGUST 2004

Class	
A	i) International Internet Bandwidth Provider for the country (bandwidth acquired internationally). ii) Internet bandwidth provider to other ISPs and other re-sale service providers through own infrastructure (or through secondary facilities from other service providers). iii) Service provision via direct connectivity through own infrastructure (or through secondary facilities from other service providers) to own clients (other ISPs, domestic clients, corporate clients etc..)
B	i) International Internet Bandwidth Provider for the country (bandwidth acquired internationally) and without own distribution infrastructure. iii) Service provision through secondary facilities from other service providers to own clients (ISPs, corporate clients etc..).
C	i) Internet service provision via direct connectivity (or through secondary facilities from other service providers) to own clients (domestic and corporate clients etc..). Resells internet bandwidth acquired from Class A and Class B ISPs.