

**PROPOSAL ON THE REGULATORY FRAMEWORK FOR THE
PROVISION OF INTERNET SERVICES IN LESOTHO**

HEARING NO.3/2004

**LESOTHO TELECOMMUNICATIONS AUTHORITY BOARD
ORDER – PURSUANT TO RULE 46 (12) OF THE LTA
(ADMINISTRATIVE, PROCEDURAL AND SERVICE
PROVISION) RULES 2000**

The Lesotho Telecommunications Authority Board, having heard submissions by Comnet Lesotho, Telecom Lesotho, Lesotho Internet Service Providers Association and deliberations during the hearing of the 16th July, 2004, hereby makes the following order:

1. The proposed Regulatory Framework for the Provision of Internet Services is approved by the Board. The detailed decision of the Board is attached hereto and marked “Annexure A”.
2. The Board is mindful of the litigation instituted by Telecom Lesotho against the Lesotho Telecommunications Authority and Bethlehem Technologies Lesotho. The Board cautions that although approved, the Framework could be negatively affected by the outcome of this pending litigation.
3. The Board’s decision be circulated to all stakeholders and be published in the media.
4. The Lesotho Telecommunications Authority shall draw up the necessary conditions and classification of licences and shall communicate this information to stakeholders and the public once this exercise has been completed.

BY ORDER:

BOARD MEMBER

BOARD MEMBER

BOARD MEMBER

THUS DONE ON THIS 16th DAY OF AUGUST, 2004

Annex A

DECISION OF THE LESOTHO TELECOMMUNICATIONS AUTHORITY

ON THE “Proposed Regulatory Framework for the Provision of Internet in Lesotho”.

1.0 INTRODUCTION

On the 16th July 2004, the LTA held a public hearing on the “Proposed Regulatory Framework for the Provision of Internet in Lesotho” in terms of Rule 46 of the Lesotho Telecommunications Authority (Administrative Procedural and Service Provision) Rules 2000

The aim of the hearing was to solicit representations from stakeholders regarding the proposal put forward by the LTA, the thrust of which was to put in place a regulatory framework that will facilitate quality access to the Internet in Lesotho. The proposal has the following major aspects:

- Competition
- Licence Classification
- Provision of International Bandwidth
- Wide Area Networks
- Local Area Networks and
- Spectrum Allocation.

2.0 PRESENTATIONS

At the hearing, the following organisations made presentations of their positions on the proposed framework:

- Comnet Lesotho (Comnet)
- Telecom Lesotho (TL) and
- Lesotho Internet Service Providers Association (LISPA)

The presentations were followed by questions from the stakeholders relating to specific presentation, at the end of all presentations, general discussions followed.

2.1 COMNET

Mr. Norman Faught on behalf of Comnet Lesotho started by indicating that the proposed framework would:

- i) Increase internet penetration while fostering competition.
- ii) Make Internet more affordable with improved customer service in the form of quality access that would ensue.
- iii) Encourage network reliability through infrastructure redundancy.

2.1.1 Comnet stated that the current framework restricts competition thereby resulting in high prices for Internet service, and there is no reliability due to lack of infrastructure redundancy.

2.1.2 Comnet indicated poor service, high prices and unreliability as common features regarding the service obtained from TL.

2.1.3 Comnet further alluded to the lack of knowledge concerning technicalities involved in Internet access and other advanced and enhanced services on the part of TL.

2.1.4 Comnet also indicated that the proposed framework would pave way for increased internet penetration due to anticipated reduced prices. Further, the quality of Internet access would be improved. Reliability through infrastructure redundancy would be guaranteed.

2.1.5 Comnet noted that any telecommunication service that is being introduced in Lesotho before 8th February 2006 should not infringe on TL's exclusivity.

2.1.6 Comnet indicated that e-mail is not real time and the following services are provided in respect of its conveyance:

- i) IP routing
- ii) Domain Name Services
- iii) Proxy caching
- iv) E-Mail

2.1.7 Comnet went further to indicate that TL's exclusivity as regards "Leased Line Services" would not be infringed as the envisaged service would not entail point to point service and no part of the infrastructure would be for the exclusive use of any customer.

2.2 TELECOM LESOTHO

Mr. Michael Anderson on behalf of TL made a presentation on the proposed framework.

2.2.1 TL expressed its desire to actively participate in the Internet market. TL agreed that there is demand for Internet access, and that there is need to establish an internet clearing point in Lesotho.

2.2.2 TL further endorsed that Wireless Local Area Networks (WLAN) should not be regulated.

2.2.3 TL agreed that there should also be no restrictions imposed on the number of Internet Service Providers (ISPs).

2.2.4 TL indicated that, however, some aspects of the proposed framework encroached on TL's exclusivity by "allowing a third party to establish a data connection between two legal entities and thereby bypassing Telecom Lesotho".

2.2.5 TL expounded by indicating that:

- i) Broadband Internet is a service that consists of the conveyance of messages other than two way speech.
- ii) the service is real time
- iii) the providers of broadband internet do not deliberately change the content of the messages

2.2.6 TL emphasised the need to achieve the objectives of the framework while protecting TL's exclusivity.

2.2.7 TL further indicated its willingness to build a wireless Broadband Network. It proposed to resell the network to the ISPs at a cost overseen by the LTA and that it would refrain from selling the service directly to the end users.

2.3 LESOTHO INTERNET SERVICE PROVIDERS ASSOCIATION (LISPA)

2.3.1 Mr. Otto Adelfang on behalf of LISPA highlighted the existing scenario as far as problems of extremely low internet penetration, lack of adequate bandwidth provision compounded by existing poor

network infrastructure and the predatory monopolistic practices by TL.

2.3.2 The Association impressed on the quality of internet that would follow from the proposed framework. The Association indicated that the benefits are endless and the advanced services to be provided will undoubtedly act as a positive catalyst in the economy.

2.3.3 LISPA also expressed concerns that the internet industry is extremely dynamic and therefore recommends that a speedy ruling would be of benefit to the industry.

2.4 VODACOM LESOTHO

Having briefly outlined the positions of the respective presenters, it is also important to indicate that Vodacom, represented by Mr. Setiloane stated its position thus:

That the proposed internet framework should not be used to bring in another mobile operator under the pretext of Internet and the discussions on the mobile internet should wait and be done jointly with 3G at a later stage.

3.0 FINDINGS

3.1 In totality, it appears that the issues proposed in the framework were agreeable, despite concerns from TL on the basis of its exclusivity and Vodacom's concern in reference to mobile internet.

3.2 On competition, all parties agreed that the number of participants in the Internet market should not be limited.

3.3 As regards Licence Classification, TL objected to the extent that its exclusivity is contravened. TL's concern on this issue is dependent on the conclusion regarding exclusivity which will be considered hereinafter.

3.4 Provision of international bandwidth was not contested and therefore is taken to be without controversy.

- 3.5 Local Area Networks were fully supported by all parties.
- 3.6 A lot of debate centred around Wide Area Networks (WAN). The main opponent was TL on the basis that at least some aspects of WAN would encroach its exclusivity.
- 3.7 On the proposal it has been made clear that Voice-over-Internet-Protocol (VoIP) should not be provided under the proposed framework as it has been adjudged to encroach on TL's exclusivity.
- 3.8 The other components of TL's exclusivity are:
"Leased Line services and Basic Data Services"
As regards leased line services, item 2.4.2 of the Proposed Framework (Annex A) indicates that such should not be allowed while exclusivity is still effective. Any encroachment in this regard will have to be dealt with accordingly. It is also important to emphasise that TL does not have exclusivity on infrastructure with exception of "Leased Lines Services within Lesotho only".
- 3.9 On "Basic Data Services", TL went at length to demonstrate how and why it feels its exclusivity is being threatened.
- 3.10 Real time – conveyance of messages was being done in real time. When asked the details of such assertion, it was indicated by TL that the link between terminal equipment of a customer and the server of an Internet Service Provider (ISP) provides real time transmission.
- 3.11 TL however, conceded that conveyance of messages from the sending terminal equipment to the receiving terminal equipment is not real time, or did not seek to allege that.
- 3.12 On this issue, the LTA concludes that internet communication is a service based on Transmission Communication Protocol/Internet Protocol (TCP/IP) a "connectionless Protocol" which is a "store and forward application end-to-end" and is thus not a "real time application".
- 3.13 Though TL alleged that no additional service is being provided in respect of conveyance of the messages, it became clear that
- IP routing
 - Domain Name Service
 - Proxy caching
- are some of the services provided in respect of the messages conveyed by the Internet. By nature of these services, it is clear

that there are additional services being provided in respect of such conveyance.

- 3.14 The OSI model relied upon by TL does not advance any of their submissions as it is not conclusive on the topic. In any case, issues of exclusivity have to be considered on the basis of TL's licence and the specific issues complained of.
- 3.15 It is noted that TL has promised, once again, to roll out internet infrastructure.
- 3.16 Turning to Vodacom Lesotho's concern, it is important to note that prohibition of VoIP alone makes it impossible for the ISPs to be considered as mobile operators. Further delay on this matter would cause unjustifiable harm to a country that is already below average in terms of internet penetration.

4.0 CONCLUSION

- 4.1 With the exception of TL and Vodacom Lesotho, there was a general acceptance and support of the proposed internet framework by stakeholders.
- 4.2 As shown above, the proposed framework does not encroach on TL's exclusivity.
- 4.3 The Framework is therefore approved.



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Proposed Rules for Provision of Internet Services in Lesotho

June 2004

1.0 Introduction

Subsequent to the completion of the second stage of the consultation process on the “Regulatory Framework for the Provision of Internet Services”, the Board of Directors of LTA decided to make a ruling to establish an Internet regulatory framework as indicated in this document. The document is divided into three sections dealing with the provision of international bandwidth, wide area networks and local area networks, respectively.

The recommendation is guided by three main reasons:

- i) The Authority recognises the importance of information and communications technology in the economic development of the country. In particular, the role of access to the Internet.
- ii) The recognition that widespread Internet access is very limited throughout the country.
- iii) The fact that new/advanced technology bearer services (e.g. Broadband) are virtually non-existent in the country.

The new licensing regime is underpinned by the following reasons:

- i The feedback received by the Authority from the final consultation document.
- ii The currently existing licence conditions of service providers and the need to put into place a new licence regime in order to ensure fair competition in provision of such services.
- iii The incessant need for such services throughout the country together with the need to encourage investment and innovation in the information communications technology industry.

The following section contains the proposed rules. An analysis of issues, including feedback from the consultation process pertaining to these rules is included here as Annex A

Proposed Rules for the Provision of Internet Services In Lesotho

1. Competition

The Internet market will be open, though still subject to licensing in line with the LTA rules and regulations. That is, no restrictions will be placed in terms of numbers of participants in the market or range of services with the exception where such services will be in violation of the Laws of Lesotho, or the exclusive rights of existing licensees. In particular, Internet service providers are prohibited from trading in voice over Internet Telephony (VoIP) until 8 February 2006.

2. Licence Classification

ISP licences will be classified as follows:

Class	
A	<ul style="list-style-type: none">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	<ul style="list-style-type: none">i) International Internet Bandwidth Provider for the country (bandwidth acquired internationally) and without own distribution infrastructure.ii) Service provision through secondary facilities from other service providers to own clients (ISPs, corporate clients etc..).
C	<ul style="list-style-type: none">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.

3. Provision of International Bandwidth

- 3.1 Class A and B Internet service providers will have the right to set up infrastructure to access bandwidth from international sources.
- 3.2 Class A and Class B ISPs are required implement a mechanism for interconnection at their level, i.e. to set up and maintain a form of Internet Exchange Peering Point in order to facilitate local peering.

4. Wide Area Networks

- 4.1 Internet service providers will have the right to provide access infrastructure to their own customers. This extends to both fixed and mobile wireless networks.
- 4.2 Leasing of infrastructure to third parties is prohibited until 8 February 2006.
- 4.3 Use of ISM bands for wide area networks is prohibited.

5. Local Area Networks (LANs)

- 5.1 In line with international standards, the Authority considers WLAN equipment as part of customer premises equipment. This means that any parties interested in doing so may sell the equipment. Service providers may sell the equipment as part of a product set; however, consumers should be informed of the cost of the equipment as well as the cost of service they are subscribing for.
- 5.2 The Authority permits the use of Wireless equipment for (LANs) in ISM bands, as long as service providers and users observe ITU regulations governing these bands. The use of other bands for this purpose would be subject to radio spectrum regulations.
- 5.3 Commercial provision of services such as Internet Hotspots will be permitted without the requirement for licensing or registration. However, all hotspots must be connected to licensed Internet Service Providers.
- 5.3 Use of Hotspots in the ISM band shall only be limited by transmission power in line with relevant ITU Standards.
- 5.4 ISM bands are to be licence exempt. However strict adherence to transmission power levels

6. Spectrum Allocation

Regulated bands are to be allocated on a first-come-first-serve basis together with the Authority's regard to the efficient deployment of the spectrum.

1.1 Provision of International Bandwidth***1.1.1 COMPETITION:***

The Authority plans to open the market as far as Provision of International Bandwidth for Internet services are concerned.

Currently, there are two licences for the provision of international internet bandwidth (namely Telecom Lesotho and Bethlehem Technologies). Existing ISPs have to acquire such bandwidth from the two service providers mentioned. They also face the prospect of competing with TL in the retail market, which poses fair competition issues

The Authority plans to put into place a new licensing regime, which does not preclude ISP's to acquire their own international internet bandwidth. This would however mean putting into place new classification of ISP licences.

1.1.2 INFRASTRUCTURE:

The Authority is aware of the "exclusivity TL enjoys" with regard to "basic data" and "basic voice". It therefore wishes to make it very clear that this does not extend to exclusivity on value added services such as Internet and broadband services. Moreover this does not imply in any way "exclusivity on the infrastructure", especially in the local loop provision of services. This means that licensed ISPs will be allowed to provide direct connectivity with their clients (corporate or domestic, etc...) depending on the category of their licences. Such service providers would be highly encouraged to enter into agreements with owners of existing infrastructure instead of having to construct their own, both to avoid unnecessary duplication as well as to minimize the adverse impact on the environment. Collocation and facilities sharing is highly encouraged.

1.1.3 PROSPECTIVE LICENSEES:

A privately owned companies with sound business plans incorporating future expansion/roll-outs throughout the country.

1.1.4 NUMBER OF ISPs

All ISPs are to be allowed to acquire international internet bandwidth in line with the liberalisation of the market. This will however depend on the type of licence granted to the ISP. This should be sufficient to allow competition while enabling an investor to get reasonable returns on investment and ensuring the growth of business in the future. However, it is important to make a clear distinction between the three levels of ISPs as follows:

Class	
A	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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.

Class A and Class B ISPs must implement interconnection at their level, i.e. to set up and maintain a form of Internet Exchange Peering Point in order to facilitate local peering.

2.0 SECTION II: Wide Area Networks (WANs)

2.1 ACCESS NETWORKS:

ISPs are to be allowed to provide access for their customers. However, they are prohibited from selling VOIP services until February 8th 2006. The use of ISM band for WANs is not allowed.

2.2 SPECTRUM ALLOCATION:

ISM bands are licence exempt. Regulated bands are to be allocated on a first-come-first-serve basis together with the Authority's regard to the efficient deployment of the spectrum.

3.0 SECTION III: Local Area Networks

3.1 CUSTOMER PREMISES EQUIPMENT (CPE):

In line with international standards, the Authority considers WLAN equipment as part of customer premises equipment. This means that any parties interested in doing so may sell the equipment. Service providers may sell the equipment as

part of a product set; however, consumers should be informed of the cost of the equipment as well as the cost of service they are subscribing for.

3.2 WIRELESS LOCAL AREA NETWORKS

The Authority intends to follow international trends and allow the use of Wireless LAN, as long as service providers and users observe ITU regulations governing these ISM bands. The use of other bands for this purpose would be subject to radio spectrum regulations.

3.3 HOTSPOTS

Hotspots are to be freely established by any interested parties. However, all hotspot should be connected to licensed Internet Service Providers.

Use of hotspots in the ISM band shall only be limited by transmission power in line with relevant ITU Standards. ISM bands are to be licence exempt.

3.4 PROVISION OF INTERNET SERVICES USING BWA NETWORKS AND WLANS vis-à-vis THE EXISTING RIGHTS OF LICENSED SERVICE PROVIDERS.

The Authority intends to allow for both fixed and mobile broadband services for Internet access to be established, as long as provision of VOIP is avoided until February 8 2006.

3.5 NUMBER OF PLAYERS

The Authority does not restrict participation in the ISP market.

3.6 INTERNET SERVICE PROVISION BUSINESS IN LESOTHO.

The Authority intends to take into consideration the results of the market study and make all the efforts to facilitate quick implementation of “wireless access” technology as it may be an answer to the low penetration of Internet in Lesotho.

