BOTSWANA TELECOMMUNICATIONS AUTHORITY

CONSULTATION PAPER

ON THE

CREATION OF FACILITIES BASED OPERATOR (FBO) LICENCE

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The Current Licensing Framework.

In June 2006, the then Minster of Communications, Science and Technology issued a Ministerial Directive which redefined the telecommunications landscape in Botswana. The Directive introduced a number of changes which included liberalisation of Voice over Internet Protocol; liberalisation of the voice international gateway; introduction of service and technology neutral licences and further allowed mobile operators to construct their own transmission links thereby reducing their dependence on Botswana Telecommunications Corporation (BTC) for such essential facilities.

2 The table below provides a summary of key changes in the licensing framework that were effected as a result the Directive.

Table 1

Comparison of the Old and New Licensing Frameworks

Licensing Framework of 1998 to 2006	**Licence Duration in Years**	**Licensing Framework of 2006 to date**	**Licence Duration in Years**
Distinct Fixed Line Licence	15	Combined to form Public Telecommunications Operator Licence offering fixed, mobile, internet and data services.	15
Distinct Mobile licence	15		
Distinct Data Service Provider's Licence prohibiting provision of VoIP	2	Combined to form Value Added Network Service Licence offering various forms of add-on services as may be authorised by the Authority including VoIP.	15
Distinct Internet Service Provider's Licence prohibiting provision of VoIP	2		
Distinct Private Telecommunications Network Operator's Licence	2	Maintained in the old form as Private Telecommunications Operator's Licence.	5

3 The licensing framework mentioned above has served the market well up to the present moment but it has since become apparent that it does not adequately cater for certain services. Even where it does, it has been observed that the framework does not fully promote competition in the industry to the desired level. A case in point is the licensing of companies that would want to deploy optic fibre in Botswana. Under the current framework, this service is restricted to PTOs and they might not focus on this area as they find other business areas more lucrative.

4 It has also been established that the current framework does not adequately provide for the licensing of certain services which include Global Personal Mobile Communication by Satellite, Mobile Virtual Network Operators to mention but a few. It is in this context that the BTA would first like to undertake a closer look at the licensing framework with a view to making it more relevant to the market. Such an exercise is planned for once the converged regulatory Authority is in place and fully functional, as the new body would have to consider licensing issues more holistically taking into account the additional mandate to regulate broadcasting and postal services. The revised licensing framework is expected to enhance competition that would facilitate wider choice of services for end consumers.

5 Based on the foregoing, the BTA would like to put in place interim measures that will facilitate efficiency in the market. These measures are founded on the realisation that while government has invested heavily on the East African Submarine System (EASSy) and West African Cable System (WACS) undersea cables the effect of such investments has not met expectations. This undesirable state of affairs is partly attributable to lack of proper structures to effectively manage these investments.

6 On the basis of the foregoing, it is desirable that the BTA refines the licensing framework in order to allow more efficient functioning of the market for the benefit of the national economy. The BTA therefore proposes the introduction of an additional licence category to be known as Facilities Based Operators licence. This type of licence will allow companies to provide a wide range of wholesale services including without limitation fibre, towers space and ducts.

7 The BTA has therefore undertaken a benchmark exercise to see how other jurisdictions deal with licensing of key telecommunications services and in particular wholesale infrastructure deployment and rollout of services. The results of this exercise are briefly summarised below.

What is Prevailing in the Other Jurisdictions?

8 The BTA has undertaken research on the different models and considered the experiences of Argentina, Australia, European Union, India, Malaysia and Singapore. In a bid to bring the benchmarking exercise into regional context, the BTA went an extra mile to conduct some research on the experiences of South Africa and Tanzania, which are also outlined in this paper. The information on the models for the various jurisdictions is presented below:

Argentina

9 Argentina uses a single licence regime which was introduced in the year 2000. In the single Licence regime, a licensee provides any

telecom service other than mobile service. Any service operator other than those providing mobile service can thus take a licence under the single licence regime. The potential service operator has to inform the regulator of the service which it is going to provide and can choose any service area or customer category.

10 Information to the regulator regarding the service to be provided is required particularly for the purpose of interconnection related matters. The single licence does not guarantee access to limited resources such as spectrum or numbering and the right of way.

11 The difficulty with the Argentina model is that it still makes a clear distinction between mobile licence and the single licence hence it may not be consistent with the notion of having a service neutral framework.

Australia

12 In Australia, there is an open licensing regime for telecommunications with no distinction being drawn on the basis of the technology used and services offered. There are basically two types of licences: carrier licence and carriage service provider's licence.

13 A carrier licence allows the owner(s) of a network to supply carriage services to the service providers subject to obligations set out in its licence and any additional conditions imposed by the Minister. Carriers are individually licensed and pay application and ongoing licence fees that cover the costs of regulating the industry. Carriage service provider's licence allows the licensee to provide telecommunication services to the end users.

14 The limitation of the Australian model is that carriage service providers might not be able to rollout their services to certain areas until the carriers reach such areas.

European Union (EU)

15 The European Union model is a Simple Authorisation Regime subject to separate regulations, notifications or guidelines. The European Parliament and the Council gave a set of directives to its Member States so as to provide for a single regulatory framework for all transmission networks and services. The main objective of the directives was to replace service specific licences by Authorisations in the EU Countries. The Member States are, however, permitted to impose a set of conditions to the general Authorisations, for example financial contributions to funding Universal Service Fund.

16 On the use of Radio Spectrum, Member States can grant rights based on a selection criteria, which must be objective, transparent, non–discriminatory and proportionate.

17 The European Union model is suitable for highly competitive markets, which have matured over time. The model is therefore not suitable for the Botswana market which still needs to be nurtured with a view of generating effective competition.

India

18 In 2003, the Telecommunication Regulatory Authority of India (TRAI) established a Unified licensing regime. The salient features of

TRAI's licensing framework, which has four categories of licences, are as follows:

18.1 Unified Licence - All public networks, including switched networks - irrespective of media and technology - capable of offering voice and/or non-voice (data services) including Internet Telephony. Unified Licence implies that a customer can get all types of telecommunication services from a Unified Licence Operator. The operator can use wireline or wireless medium of communication.

18.2 Class Licence - All services including satellite services, which do not have two-way connectivity with public network, are covered under class licence. This category excludes Radio Paging and Public Mobile Radio Trunking Systems (PMRTS) Services and includes niche operators.

18.3 Authorisation - This category will cover the services for provisioning of passive infrastructure and bandwidth services to Other Licensed Operators, Radio Paging, PMRTS, Voice Mail, Audiotex, Video Conferencing, Videotext, E-mail service, Unified Messaging Services, Tele-banking, Tele-medicine, Tele-education, Tele-trading, E-commerce, Internet Services including existing restricted Internet Telephony (Personal Computers (PC) to PC within or outside India, PC in India to Telephone outside India, IP based H323/SIP Terminals connected directly to ISP nodes to similar Terminals;, but not Internet Telephony in general.

18.4 Standalone Broadcasting and Cable TV licence – This category covers those service providers who wish to offer only broadcasting and/or cable services.

19 In the Indian licensing regime, there are no restrictions on usage of Internet Telephony or other IP enabled services provided they are offered by operators with a Unified Licence.

20 The advantage of the Indian licensing framework is that it provides for full convergence of communications services. The converged licensing framework also encourages efficient utilisation of network resources while at the same time it ensures regulatory flexibility to address market and technological developments. The downside of the model is that it tends to licence deployment of major infrastructure such as optic fibre with some value added services under their authorisation regime.

Malaysia

21 In Malaysia, the Communications and Multimedia Act, 1998 (CMA) established a regulatory licensing framework which is both technology and service neutral. The licensing regime allows a licensee to undertake activities that are market specific. There are four categories of licences:

21.1 Network Facilities Providers Licence – This licence is granted to a licensee who owns network facilities such as satellite earth stations, broadband fibre optic cables, telecommunications lines and exchanges, radio communications transmission

equipment, mobile communications base stations and broadcasting transmission towers and equipment. These facilities are the fundamental building blocks of the convergence model upon which network, applications and content services are provided.

21.2 Network Service Providers Licence is offered to Operators who provide the basic connectivity and bandwidth to support a variety of applications. Network services enable connectivity or transport between different networks. Typically, a network service provider is also the owner of the network facilities. However, a connectivity service may be provided by a person using network facilities owned by another.

21.3 Applications Service Provider's Licence is granted to those who provide particular functions such as voice services, data services, content-based services and electronic commerce. Applications services are essentially the functions or capabilities, which are delivered to end-users.

21.4 Content Applications Service Provider's Licence holders are special subset of applications service providers including traditional broadcast services and newer services such as online publishing and information services.

22 The Malaysian model is fairly good in so far as it has been designed to accommodate convergence. The downside of the model is that more than one licence is required to provide telephone services depending upon whether the service provider owns the network and what type of services are being provided. For instance, a service provider that owns its own network must obtain three licences to be able

to offer mobile telephony to the public - these include a network Facilities Provider Licence, a Network Service Provider Licence and an Application Service Provider Licence. This may be viewed as an administratively cumbersome process.

Singapore

23 The licensing model in Singapore is based on two broad categories: Facility Based licence and a service based licence.

23.1 Facility Based Operator (FBO) - can build telecommunications network for the carriage of telecommunications and broadcast traffic.

23.2 Service Based Operator (SBO) – is an operator required to lease telecommunication network elements such as transmission capacity, switching services, ducts and fibre from any FBO to provide telecommunication services to end users or resell the telecommunication services of FBOs.

24 The Singapore licensing framework is similar to the Australian as they have two main categories, that is, those rolling out networks and the service providers.

South Africa

25 South Africa has passed a piece of legislation to promote convergence in the broadcasting and telecommunication sector called Electronic Communication Act, 2005 (No. 36 of 2005]. The licensing

framework proposed in the said legislation has the following licence categories:

25.1 Electronic Communications Network Service Licence which covers any system of electronic communication facilities used for the conveyance of electronic communication including without limitation: Satellite Systems, Fixed Systems, Mobile systems, Fibre optic cables, electric cable systems, other transmission systems etc.

25.2 Electronic Communication Service Licence covering any service provided to the public, the state, or the subscribers to such service, which consists wholly or mainly of the conveyance by any means of electronic communications over an electronic communication network, but excludes broadcasting.

25.3 Broadcasting Service licence – covers any broadcasting services conveyed by means of electronic communication network.

25.4 Radio Frequency Spectrum Licence which is a licence authorising the holder to use the radio frequency spectrum.

26 The South African framework resembles the Indian model in a lot of ways and they are both designed to accommodate full convergence of communications services.

Tanzania

27 Tanzania has a licensing regime which is technology neutral and horizontally integrated in response to the convergence of technology.

The new converged licensing framework of Tanzania includes the following four categories of licences:-

27.1 Network Facility Licence (NF); this licence authorises ownership and control of electronic communication infrastructure. Examples of facilities within the scope of this licence include Earth Stations, Fixed links and cables, Public Payphone facilities, Radio communications transmitters and links, Satellite hubs, Satellite control station, Space station, Submarine cable landing centre, Switching centre, Tower, poles, ducts and pits used in conjunction with other network facilities.

27.2 Network Service Licence (NS) – gives authorisation to operate electronic communication networks in order to deliver services. Examples of network services are Bandwidth services, Broadcasting distribution services, Cellular mobile services, Access applications service, Space Segment Services.

27.3 Application Service Licence (AS) – This licence authorises reselling or procurement of services from Network Service operators. The salient feature of this licence is that the licensee does not own network infrastructure nor operate network. Examples are internet providers, virtual mobile provider, payphone services, PSTN, Public cellular services, IP telephony, Public payphone service, Public switched data service.

27.4 Content Service Licence (CS) – Authorises the provision of content such as Satellite broadcasting, Broadcasting Terrestrial free to air TV, Terrestrial radio broadcasting and other electronic media.

28 The Tanzania model is identical to the Malaysian model in every respect. The model is not recommended for Botswana as it is administratively cumbersome.

Recommended Licensing Framework for Botswana

29 Based on the benchmark exercise detailed above, the BTA would like to refine the current licensing framework by leaning towards the Singaporean and Australian model. The model allows for service and technology neutrality while at the same time allowing the existence of Facilities Based Operators whose core mandate would be to rollout infrastructure and service PTOs and VANS. The BTA would however slightly modify this model by allowing the PTOs to rollout the backbone infrastructure as it is currently the practice. This would serve as a "safety valve" should the Facilities Based Operators not be able to service PTOs in certain areas.

30 In this context, the BTA is of the view that PTOs and VANS should continue to exist in their present form. In addition a new category of Facility Based Operators would be introduced to service PTO and VANS. The Private Telecommunications Network Operators should continue to be licensed in their present form. However, Private Network Operators should not be allowed to buy service from the Facilities Based Operators as they do not offer service to any consumers and strictly speaking, they are not in the telecommunications business

BTA Preliminary Positions

31 BTA should create a Facilities Based Operator's licence which will allow the licensees to own, operate and maintain a telecommunication backbone network and other wholesale facilities for purposes of servicing other licensed operators only, excluding Private Telecommunications Network operators.

What is your view with regard to introducing a licence category of Facility based operators in the Botswana Market to provide wholesale services to licence operators excluding private networks?

32 Depending on the business plan of the applicant, the FBO may be allowed to construct and operate access network or the local loop which may be leased by the PTOs and/or any other licensed operators for purposes of reaching their customers.

The FBO will be allowed to provide wholesale services in all parts of the network including the access. What is your view on that preliminary position?

33 FBO licence should be made available to applicants that may want to enter this market segment. In order to promote efficiency in the operation of wholesale providers it is proposed that the number of licences should not be limited in this market. It is therefore recommended that the FBO market should be fully liberalised subject to availability of scarce resources. In other words, while entry to the market will not be restricted, issuance of a licence does not in any way guarantee allocation of scares resources such as spectrum and way leaves (right of way)

The FBO licence category will be fully liberalised with no limitation on the number of operators. However the issuance of licence does not guarantee allocation of scarce resources such as spectrum and wayleaves. Any applicant who meets the licensing requirement will be considered for licensing. What is your position with regard to the above statement? Please provide supporting reasons.

34 In licensing the FBOs, the BTA would like the applicant to submit a detailed Business Plan on the basis of which the Authority will be able to appreciate the value that the applicant will add to the national economy. Such a business plan will also assist the Authority to assess the viability or otherwise of the proposed venture which will give effect to section 30 of the Act. The approved business plan will form part of the FBO licence and the entity will be required to commit to the targets as contained in the business plan. The roll-out obligations in business plan will form part of the licence conditions. In addition the applicant may be required to provide a financial guarantee to cover for the performance as outlined in his business plan. The performance bond may also be required in order ensure timely rollout of services. If the licensee fails to meet the rollout target, the BTA would be entitled to deduct money from the bond as a penalty and the licensee would be required to replenish the bond to its original level.

What is your position with regard to the requirement to provide a financial guarantee and a performance bond? Please provide supporting reasons.

FBOs to Follow the Principle of Open Access

35 The BTA is of the view that FBOs should follow the principle of open access in selling or leasing its facilities to other licensed operators. This will ensure transparency and promote fair competition as all players will be given equal treatment. The regulator will put in place measures to ensure that FBOs adhere to the open access principle and that there are no price or non-price barriers which may impede competition.

What is your view with regard to FBO licenses operating on an open access principle and in non-discriminatory manner?

Fair, Transparent and Equitable Terms

36 The BTA is of the view that FBOs should provide services on fair, transparent and equitable terms.

What is your view with regard to FBO licenses providing services on fair, transparent and equitable terms?

FBOs not to Compete at Retail Level

37 FBOs should not compete at retail level. This view is consistent with the notion of a backbone operator that only services Other Licensed Operators hence a wholesale service provider.

Do you agree that FBOs should not provide service at retail level and that they should provide service to licensed operators only?

FBO LICENSING REQUIREMENTS

Organisational Structure

38 The applicant shall be required to provide information on the organisational structure of the company in order to demonstrate the human resource capability to deliver the services as indicated in the business plan. It is important to provide documentation on shareholding, directorship, registered offices, certificate of incorporation and any other relevant documentation. Information pertaining to management structure and compositions of the governing body must also be provided. Such information must be detailed enough and be presented in a manner that will assist the BTA to assess if the applicant has the appropriate human capital to implement the business plan as submitted to the Authority.

Financial Capability

39 The applicant will be required to demonstrate financial capability of delivering the proposed services as indicated in the business proposal. The Authority will require financial guarantee and/or performance bond in order to ensure that the applicant meets its obligations as outline in the proposed business plan.

Business Plan

40 The applicant shall describe in detail all the services it intends to provide, including the timing, and the competition strategies it will use to penetrate the market. The Business plan must be detailed in order to

allow the Authority to make informed decision in terms of licensing. The proposed pricing structure for the envisaged services must be included in the business plan

41 The applicant is expected to present a compelling business case indicating what gaps have been identified and how they will be bridged. Benefit to the consumers and national economy must be identified with clear-cut and sustainable business strategies aimed at promoting competition and consumer satisfaction.

Technical Plan

42 The applicant shall be required to provide a detail description of the proposed system and provide following information:

i) Network Configuration

Description of the overall infrastructure and components of the international and national networks that will be deployed to enable the provision of the proposed telecommunication services shall be provided. The description shall include the network management capabilities, routing plan, transmission plan, signalling plan and diversity plans, where applicable.

ii) Network Facilities

The technical details of the proposed network technologies such as international gateways, switches, cable ducts, radio base station sites and other equipment to be installed and frequency spectrum to be used shall be provided.

iii) Roll-out plan

The roll-out plan indicating the geographical coverage to be covered by the proposed network upon launch of services and the network capacity expansion plans for the first 5 years of operation; and commitments for improvements to infrastructure facilities for the next 5 years. The proposed roll-out plan shall be attached to the licence as obligations.

What is your view with regard to the proposed FBO licensing requirements?

Citizen Ownership

43 In order to promote the participation of citizens in the ICT industry, the BTA proposes that the FBO licensees should have minimum requirements for the citizen ownership. It is proposed that the FBO licensee should have a minimum citizen ownership on 35%, and such shareholding should be maintained at that level for the subsistence of the licence. Therefore the licence will be only issued to companies which meet all the licensing requirements including the citizen ownership requirements.

What is your view with regard to having a minimum citizen ownership of 35% for the FBO licence?

Key Provisions of the Draft Facilities Based Operator's Licence

44 The main provisions for the proposed Facilities Based Operator's licence are highlighted below. The detailed draft FBO licence is also attached for the review and feedback. **It must be noted that some of the conditions in this sample licence may be varied and/or new ones may be added depending on the type of services (detailed in Schedule 1) that the particular applicant would want to provide.**

44.1 The FBO licence as proposed has a validity period of 15 years and is primarily concerned with the deployment of core infrastructure. The licence conditions are designed to ensure expanse network coverage and high quality public telecommunications services. The licence conditions also allow the provision of other services that are incidental to network operation such as access network where the PTOs do not have coverage or where PTOs do not wish to directly invest. The licensee will have the following rights and obligations:

Rights

44.2 Operation of wireline and wireless networks throughout Botswana for purposes of providing telecommunications facilities to licensed service providers.

Obligations

44.3 Operators must meet all reasonable demand for service throughout Botswana;

44.4 Contribution to Universal Service Fund once in place ;

44.5 Compliance with quality of service standards;

44.6 Tariff control;

44.7 Accounting separation where the applicant has other business units;

44.8 Access obligations including backbone network and gateway facility sharing;

44.9 Obligation to comply with any other regulatory requirements as guided by the Act; and

44.10 Compliance to all other laws of Botswana.

Fees

44.11 Payment of regulatory fees which will include among others, but not limited to Service Licence Fee, System License Fee, Turnover Related Fees and any other relevant fees as stipulated by the BTA. The proposed licensing fees for the FBO licence shall be as follows:

- Application fee: P 10 000 (ten thousand) (once off)
- Initial Licence fees: P1 000 000 (1million) (once off)
- Annual System Licence fee : P250 000
- Annual Service licence fee: P250 000
- Turn-over related fees: 3% of the gross turnover

The systems and service licence fees shall be escalated by the rate of inflation every year and all fees are subject to review.

What is your view with regard to the draft FBO licence conditions including the proposed licence fees?