BOCRA

ICT LICENSING FRAMEWORK IN BOTSWANA

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PREAMBLE

The Botswana market for ICT is characterised by high growth and demand for services across the geographic and socio-economic spread of the country. Demand for real-time high quality and affordable services is driven by Multi-national corporations, public institutions, business enterprises, households, individual consumers and people with special needs. Therefore service providers should be able to meet demands by users and this is primarily facilitated by a regulatory environment that allows services providers to innovate, expand reach of networks and offer value propositions on use of their products and services. Users demand that products and services be delivered on demand over a single converged platform for convenience, affordability and ease of access and use.

In line with its mandate, as spelled out in the Communications Regulatory Authority Act, No. 19 of 2012, the Botswana Communications Regulatory Authority (BOCRA or the Authority) seeks to create a conducive environment for ICT development in Botswana. It is in fulfilment of this mandate that the Authority finds it critical to continuously review the licensing framework and other related instruments.

Needless to say, the previous framework created an environment of unprecedented innovation and market growth in the areas of mobile telephony, broadband, electronic social media services and other ICT enabled services. Along with that was emergence of new market players who identified gaps in the existing markets and they demanded that the regulatory authority allows them to enter the market. Such players included among others, those who wanted to provide mobile virtual network operations (MVNOs), satellite phones (commonly referred to as Global Mobile Personal Communication by Satellite or GMPCS), cloud computing solutions, international gateways and tower services. The previous framework cannot accommodate emerging players, hence the need to usher in a framework that creates ease of entry by interested investors and players while at the same time creating value for the consumers, the market and the entire economy.

Botswana's competitiveness has declined at the international level, relative to that of other countries. To ensure the sustainable growth of the economy, the government has been trying to diversify the economy away from its reliance on diamond mining, with some degree of success. The Government has initiated Botswana Economic Diversification and Competitiveness (EDC) Project, undertaken by the World Bank. The review of the ICT licensing framework is part of the EDC project.

1   INTRODUCTION

Botswana Communications Regulatory Authority (BOCRA or the Authority) intends to implement a new ICT licensing framework in pursuit of its mandate as the supervisor of the communication services in Botswana. Postal services licences are currently not covered under this framework and will be dealt with separately. The new licensing framework is guided by the Communications Regulatory Authority Act, No. 19 of 2012.

The **revised** ICT licensing framework (the framework) replaces the previous framework that was introduced in 2006 following the Ministry of Communication Science and Technology policy directive summarised in the table below:

Table 1: Licensing framework comparison of Pre-2006 and Post-2006

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

Source: BOCRA

The main objective of the 2006 Policy Directive was to usher in a "technology and service neutral" licensing framework that would facilitate fulfilment of user demands by introducing Public Telecommunications Operator (PTO) licensees which allowed service

providers to build wireline, wireless and satellite infrastructure and provide voice, data and internet services at both national and international level. The main challenge with the multi-service license was that it created anti-competitive incentives in the market and required constant regulatory intervention to adjust behaviours of the market players.

In addition, technological convergence in the telecommunications and broadcasting markets is hastened by the growth of broadband networks, since the higher speeds and larger capacities of broadband create new opportunities for operators to offer an array of services, including voice, data, and video. Therefore the licensing framework should support the technological convergence that is being experienced in broadband networks worldwide where operators offer Internet, voice and video through a single platform commonly known as ***"triple-play".***

The previous framework had limitations in creating opportunity for seamless broadband services. The disadvantages of the previous framework are summarized as follows:

- It had limitations the concepts of open access as it remained technologically oriented and it encouraged anti-competitive behaviours.

- It was very difficult to accommodate new technology and services in the previous framework without altering it. For example the framework is unable to accommodate GMPCs and MVNOs without the introduction of specific license categories.

- Broadcasting regulation and several other new technologies struggles to fit in within the ambit of the framework.

2   OBJECTIVES OF THE LICENSING FRAMEWORK

The purpose of the new framework is to close market gaps that have existed in the previous framework and provide a more conducive environment for market growth and improvement of the welfare of the society taking into account convergence of technologies and evolution to Next Generation Networks.

The framework will primarily achieve the following:

Efficiency of Convergence: multiple services would be delivered on single network or platform embracing convergence of networks, services and technologies. This factor will drive efficient use of networks through economies of scope.

Technology neutrality: networks will not be distinguished by technology, rather they shall be licensed as networks capable of delivering multiple and multimedia products.

Ease of market entry and increased competition: new innovative service providers will be accommodated in the market and this will create stimulus for increased competition. Of particular importance are those service providers who provide solutions relevant in emerging markets like Botswana.

Consumer choice: as more players and more applications and products are introduced in the market, consumers will be able to shop for suitable solutions.

Diversification: specialised application providers will be able to participate and bring in diversification away from traditional telecommunications.

Economic Inclusion: with unbundling of licenses, SMMEs will be granted opportunity to become service providers within small niche markets.

Open Access: recognizing that broadband is an evolving phenomenon with constantly changing and expanding demands; and in order to

create enabling conditions for an advanced, universally accessible information infrastructure that promotes social and economic inclusion, it is necessary for the regulatory regime to address the structural constraints in the market arising from the dominance of a number of vertically integrated operators. Re-structuring the market to enable greater wholesale access to networks by service providers, will go a long way to creating a more competitive services sector, which is likely to enhance quality and drive down prices. The National Broadband Strategy clearly indicate the need for a shift in the regulatory regime in order to provide a more holistic and long-term solution to technology convergence and the use of broadband. The key principles explained below are key features of open access that will promote broadband networks and they are embraced in the licensing framework:

- <u>Openness</u> - at the infrastructure level, with open access for multiple services, providers are enabled to compete on shared platforms; at the level of government and its regulatory agencies there will be commitment to open governance and open data; openness in policy formulation through consultation and public participation.
- <u>Service neutrality</u> - no preference is given to any particular type of service or technology, while ensuring the use of common standards and protocols that enable interoperability;
- <u>Universality</u> - universal access to broadband services through even more provisioning of services, including a focus on services in underserved and underserviced areas and communities;
- <u>Equality</u> - address the digital divides between those with the resources and capabilities to access and optimally use the full range of broadband services
- <u>Efficiency</u> - within a competitive market, enabling the sharing of infrastructure to avoid unnecessary duplication;
- <u>Transparency and accountability</u> - by sector institutions and operators, policy and regulatory certainty to enable public and private investment;
- <u>Innovation</u> - creating conditions for innovation throughout the ICT ecosystem from policy and regulation to services and applications, and from networks to users and skills and capacity building;
- <u>Complementarity</u> - leveraging top-down coordination and bottom-up initiatives, public and private resources, fixed and wireless technologies, and different tiers of government; and

. <u>Future-proof</u> - ensuring that policy choices are flexible enough to accommodate technological progress, neutral enough to withstand technology and market shifts and resilient to value dilution.

3   SCOPE OF LICENSING FRAMEWORK

The licensing framework covers broadcasting systems, broadcasting service, subscription management services, electronic communications, telecommunication service and telecommunication systems as interpreted in the Communications Regulatory Authority Act, No. 19 of 2012.   The licensing categories fall under the broad areas of System license, Service license, Broadcasting and Re-broadcasting Licenses as provided for in the Communications Regulatory Authority Act, No. 19 of 2012. **The broadcasting license category   is dealt with separately. Radio Spectrum and Postal services are not covered in this framework and are governed by a different framework.**

4   LICENSE CATEGORIES

The licensing framework will have three major licensing categories as follows:

4.1   Network Facilities Provider (NFP)

These are licensees who shall own, operate or provide any form of physical infrastructure used principally for carrying service and applications and content. Customer premises equipment are not included in the description of network facilities. The infrastructure may include fixed links, radio communication transmitters, satellites and satellites station, submarine cable, fibre/copper cable, towers, switches, base stations. The facilities are for own use or for availing to other licensed operators on commercial basis. Private Telecommunications Networks shall fall in this category and shall further be specified in the appropriate license type to distinguish them from major networks.

4.2 Services and Applications Provider (SAP)

These are non-infrastructure based service providers and they will provide all forms of services and applications to end users using infrastructure of the Network Facilities Provider. The services and applications may be based on speech, sound, data, text and images and they deliver a particular function to the end user. The services and applications shall not be for broadcasting purposes.

4.3 Content Services Provider (CSP)

The licensee will provide content material in the form of speech or other sounds, text, data, images, whether still or moving solely for broadcasting (TV and radio) and other information services. For avoidance of doubt, subscription TV falls under this category. State broadcasters shall not require license to operate. **This licensing category will be dealt with separately.**

5 LICENSE TYPES

There will be various types of licenses under the three license categories. It is important that a simple and implementable licensing structure is designed showing the various licences under each category. The licence type structure provides further guidance on how specialised operations should be licensed and it also creates opportunity for Small, Medium and Micro Enterprises to participate at various levels, largely at regional level and in the services and applications provider category. The licence type structures are summarised in the table below:

Table 2: License Types

LICENSE CATEGORY	TYPE OF LICENSES
Network Facilities Provider License (International, National and Regional)	***International Network Facilities License*** International gateway (Satellite/Terrestrial) Cable transit Satellite Hub Systems Uplink Satellite Broadcasting Stations
	National Network Facilities License Public Fixed Systems Public Land Mobile Cellular Systems MVNO Facilities Internet Exchange Points Tower Management
	Regional Network Facilities License Broadcasting Signal Distributor Public Internet Networks Public Radio Trunking Systems Local Loop Networks, Fixed Wireless Access Systems Private Networks
Services and Applications Provider License	**Application & Service License** Fixed National Services (voice/data/text) Cellular Services and Applications (voice/data/text) International Services (voice/data/text) MVNO Services (voice/data/text) GMPCS Services Satellite Services

	Value Added Services
	• All Services and Applications carried over Regional Networks • Internet Service on Regional Networks • VOIP • Services offered on Private Networks • Premium Rate Service • Credit Card Validation Service • Other web based public commercial information
Content Services Provider License	**Content Service License (Broadcasting)** The various broadcasting licenses will be dealt with separately.

The listing provided above is not exhaustive. Any service which may require a license will be assessed by the Authority to determine the license category. The above types of licenses are explained below.

5.1 Description of License Types in the category of Network Facilities Provider Licenses

5.1.1 International Network Facilities License

The licensee or service provider has international scope of operation only and shall be licensed to provide network facilities for connectivity to destinations outside Botswana. International network facility will be connected to national network facility to facilitate

seamless connectivity and conveyance of services, applications and content. The Terms and Conditions of the license will stipulate further details of operation, for instance, the licensee can provide wholesale network facilities only which means they would only sell to other licensees such as Fixed Network licensees, who will in turn sell to end users.

5.1.2 National Network Facilities License

The licensee has national scope of operation and shall connect to International Network Facilities if there is need for connectivity to destinations outside Botswana. The Terms and Conditions of the License will stipulate further details of operation, for instance, the license may be licensed to sell to other licensees or to retail consumers.

5.1.3 Regional Network Facilities Providers

The service provider is licensed to build local networks or own private network. A local network shall be confined to a city, town or village if it is meant to serve the public, otherwise it shall be confined to ownership and use by a business company (i.e. Private Network). There is no wholesale business within this category.

5.2 Description of License Types in the category of Services and Applications Provider License

5.2.1 Services and Applications License

This license type defines the services and applications to be carried in the networks and covers among others voice, data, internet, SMS and other services. GMPCS and MVNO services fall in this license type. The

services are carried by licensees who have network facilities licenses.

The licensee can operate at both national and international scope. However, licensees who seek to service Other Licensed Operators only are issued wholesale service and applications licence which shall then define the wholesale service and application.

5.2.2 Value Added Services License

This license type is specifically designed to accommodate Small Medium and Micro Enterprises and those licensees who buy from Other Licensees to sell to end users. The licensees provide value add to applications and services obtained from Other Licensees and they also provide internet based applications and services.

6 LICENSING PROCEDURE

The key principle that will be adhered to in the implementation of the revised licensing framework is that the market demand will determine the number of licenses to be granted in all the licence categories except in areas where there is limitation of resources such radio frequency spectrum, numbering, rights of ways etc. The radio frequency spectrum will be assigned in accordance with spectrum licensing procedures. Therefore the market is fully liberalised for all the licenses which do not require limited resources. The procedure that will be followed in the implementation of the licensing framework is that:

- Any operator will be allowed to choose to be in more than one category but should be expected to obtain applicable licenses of all the categories they choose to operate in.

- There shall be no distinctions between say mobile or fixed services, satellite or terrestrial services, data or voice services, etc. Instead licensees will be categorized based on whether

they are Network Facilities provider, Service and Application Providers or Content services providers.

- Direct interconnectivity between all network operators will be permitted, and indeed mandated.

- Cross-subsidization between the various license categories will not be allowed. Operators with significant market power the Authority will require them to implement accounting separation in order to structure their operations and submit distinct operational accounting returns to BOCRA as part of their quarterly and annual compliance returns for auditing purposes.

- With the exception of areas where there exists natural limitations (for instance spectrum availability), the market will determine the number of licensees.

- Radio Spectrum availability and allocation shall be considered independent of availability and issuance of other licences. This means that issuance of network facilities licence or service and applications licence shall not automatically guarantee spectrum allocation. Type Approval shall also be considered independent of issuance of other licenses.

7   MAPPING OF OLD LICENSES TO CURRENT LICENSES

The migration of old licensees to current framework is guided by the principle that that the old licensees must remain on the same or more favourable terms and conditions. The license conditions of the current licenses will be discussed and negotiated with each licensee in the market to ensure all aspects are covered within this framework.

It is important to note that by adopting this framework, BOCRA does not intend to vary in any way the existing timeframes for the expiry of the existing licenses nor interfere with the existing frequency and numbering assignment. In addition and for purposes of ensuring a level playing field, the framework will be applied to both existing and new licensees

and in a manner that ensures that none of the parties is disadvantaged. The table below summarises the mapping of the old licenses to the current licensing framework:

Table 3: Mapping of Old Licenses to Current Licenses

Provisions of Communications Regulatory Authority Act	Old License Category	Type of Licenses to be applied	Current Category
System License (section 40)	PTO License	International Network Facilities License, National Network Facilities License.	Network Facilities Provider
	VANS License	Regional Network Facilities License	Network Facilities Provider
	Private Network License	Regional Network Facilities License	Network Facilities Provider
Service License (section 39)	PTO License	Services and Applications License	Service and Application License
	VANS License	Value Added Services License	Service and Application License
	Private Network License	Service offered on Private Network License	Service and Application License

Source: BOCRA

The above table illustrates the types of licenses that an existing PTO who under the old framework carried a single license for multiple networks and multiple services has to obtain in order to continue operating. For instance, an existing PTO who owned and operated national networks for mobile, fixed, internet and data as well as international gateway and international network all contained in a single PTO license that defined System and Service in its Terms and Conditions, would now have to apply for International Network Facilities License for his international gateway and connectivity, National Network

Facilities Licence for his national mobile and fixed networks and Service and Applications License in order to continue providing voice, data, internet, SMS and other services on his networks.

A VANS licensee who used to own and operate a fixed wireless network in a particular town for providing internet and also sold ADSL sourced from a PTO had a single VANS license. Under the new framework, the VANS would have to obtain Regional Network Facilities License and Value Added Service license.

8   LICENSING REQUIREMENTS

The licensing requirements for the various license types are summarised in table below:

Table 4: Licensing Requirements

LICENSE CATEGORY	REQUIREMENTS
Network Facilities Provider	Comprehensive Business Plan covering at a minimum the following: • Company information on shareholders, directors, place of domicile, tax clearance. • Type of network to be built and roll-out plan. • Network diagrams and explanations • Target customers. • Pricing • Value Proposition • Details of Management Team showing technical and business management capability. • Financial capability supported by proof of funding from a financial institution. Performance bond may be required. • Indication of resources that may be required from BOCRA • Application Fees There will be a separated process for licensing of spectrum and type approval of equipment.

Services and Applications Provider	Comprehensive Business Plan covering at a minimum the following: • Company information on shareholders, directors, place of domicile, tax clearance. • Type of services and applications to be offered with roll-out plan. • Network to be used and evidence of discussions with Network Facilities Provider. • Target customers. • Pricing • Value Proposition • Details of Management Team showing technical and business management capability. • Financial capability supported by proof of funding from a financial institution. Performance bond may be required. • Indication of resources that may be required from BOCRA • Application Fees There will be a separated process for licensing of spectrum and type approval of equipment.

Source: BOCRA

Detailed requirements are shown in **Guidelines for Submission of Application for Licence under the ICT Licensing Framework of 2015, June 2015**.

9   LICENSE DURATION AND FEES

All licenses will be for duration of 15 years, save for Applications and Services License which shall be of duration 5 years. Licenses are renewable on expression of interest by the licensee 18 months before expiration of term of license. The Authority reserves the right to approve renewal. The Authority would require the licensee to provide comprehensive justification and business plan as expression of interest to renew. The license fees for the various license categories are summarised in Annexure 1.

10   CONVERSION RULES

In observance of the principle that existing licensees should not be worse off on migration or conversion to the current licensing framework the following shall be upheld:

- All licensees will apply for conversion indicating licenses they are converting to and the Authority will assess the application for validity.
- Conversion or migration to the current framework is mandatory and shall commence in September 2015 and shall run for 18 months up to February 2017.
- Where the existing licensee, in converting the existing single license has to obtain multiple licenses and he is burdened with higher license fees as a result, the Authority will maintain license fees of the old license for three years up to Sep 2018.

A detailed migration plan from old framework to the current framework is presented in **Migration/Conversion Plan by Existing Licensees to New ICT Licensing Framework in Botswana, June 2015.**

11   EFFECTIVE DATE

The licensing framework is effective on September 2015.