CONSULTATION No 1/17

POSTAL AND TELECOMMUNICATIONS REGULATORY AUTHORITY OF ZIMBABWE (POTRAZ)

'creating a level playing field'

STAKEHOLDER CONSULTATIONS ON LICENSING OF VIRTUAL NETWORK OPERATORS (VNO)

IN ZIMBABWE

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1. INTORDUCTION

In response to the fast paced technological developments and evolving consumer needs and expectations, POTRAZ regularly reviews the Regulatory Framework for the Information and Communications Technology (ICT) Sector in order to ensure optimal alignment with developments in the external environment as well as to foster unhindered growth and innovation. In December 2015, POTRAZ embarked on a review process which kicked off with the release of a consultation document on a proposed Converged Licensing Framework. This was followed by a consultative workshop that was held on the 8 March 2016 at the Harare International Conference Centre (HICC), in Harare. The consultative workshop was attended by **90** participants who included Ministry of ICT Postal and Courier Services, Government Departments, Operators, Academia, Industry, Consumers as well as other regulators including the Reserve Bank of Zimbabwe (RBZ) and the Competition and Tariffs Commission.

This consultation paper is issued in furtherance of the objectives of the above referenced consultative process. The Paper specifically focuses on the Virtual Network Operator licence category which is one of the proposals advanced by the Authority in the aforementioned Consultation Paper. This focussed effort looks to conclude consultations on the licensing of Virtual Network Operators (VNOs), including Mobile Virtual Network (MVNOs). Consultation questions have been included to guide stakeholder in formulating their responses.

2. BACKGROUND

Zimbabwe has taken great strides towards being part of the information society. Great success in this effort is thanks to the liberalisation of the telecommunications industry that was ushered in by the promulgation of the Postal and Telecommunications Act [Chapter 12:05] in 2000. The Authority's policy to encourage competition, ensure a level playing field and maintain a technology neutral stance has had a significant contribution to the success story of the ICT Sector in Zimbabwe. This commendable achievement however needs to be bolstered with the continuous review of the legislative and Regulatory Frameworks in order to keep pace with the fast changing technological environment and evolving consumer needs.

The current Regulatory Framework was last reviewed in 2009 when mobile Internet (3G) and Voice Over Internet Protocol (VoIP) were introduced in Zimbabwe. There is

need to make further adjustments to the Framework in order to address emerging services, applications, changing consumer needs and new business models that have come along with new developments in the technology, innovation and applications arena. There is also a need to open the market to more service-based competition, partnerships and new business models beyond the limits of physical resources such as radio frequency spectrum.

Given the foregoing, it is envisaged that the entry of VNOs in the telecommunications market will potentially raise the level of competition by providing consumers with a wider choice of service providers, a wider range of innovative value added services and more competitive pricing plans.

3. VIRTUAL NETWORK OPERATOR

Virtual Network Operator (VNO) means a Telecommunication Service Provider that does not own or operate a telecommunication network, but relies on the facilities of a host network to provide telecommunications services and/or applications, to its customers. A VNO can be a Mobile Virtual Network Operator (MVNO) or a Fixed Virtual Network Operator (FVNO), including Internet Service Providers (ISPs). This definition also includes Satellite Network Virtual Network Operators, who lease network facilities from local or International Providers of Satellite ground and/or space segment services

Question 1	***Do you agree with the definition of 'Virtual Network Operator' (VNO) used in this document? Comments/suggestions are also welcome.***

4. CURRENT LICENSING FRAMEWORK IN ZIMBABWE

The current licensing framework is service specific in structure as it is based on the services offered. Section 37 of the Postal and Telecommunications Act [CAP 12:05] provides for licensing of cellular telecommunication services or telecommunication services or both and licensing of the operation of a cellular telecommunication system or telecommunication system or both.

S34 of the Act divides telecommunication services in to various categories which include the following:

(i) A radio-communication service;

(ii) Fixed- line telephone service;

(iii) Internet service

(iv) Satellite telephone service

(v) Leasing of telecommunication lines

(vi) Such other telecommunication service as the Minister may prescribe for the purpose of this section.

Although our licensing framework is service specific, it has been structured in such a way that operators are issued with a single licence which authorises the provision of both services and network infrastructure as follows:

(a) Public Fixed Telecommunication Service Licence

(b) Public Mobile Cellular Telecommunication Service

(c) Public Data Network Services

(d) Internet Access Provider (IAP) Class 'A' (allowed to offer VoIP)

(e) Internet Access Provider (IAP) Class 'B' (Not allowed VoIP)

In the past, no licences have been issued for the provision of services only or the operation of a network infrastructure system only.

As defined above, VNOs seek to provide telecommunication services riding on the infrastructure of existing Network Operators. These VNOs can be licenced as service providers in terms of s37 of the Act.

The Authority is currently working on a new licensing structure which provides for a converged licensing framework in terms of the new sector policy. Considering the time required to reform the current legislation to conform to the new policy direction, we propose to introduce MVNO licensing by way of amending the existing licensing framework as espoused by the Postal and Telecommunications (Licensing, Registration and Certification) Regulations, 2001 as amended from time to time to include a new VNO licence category, its terms and conditions.

Question 2	***Do you agree with the above overview of the telecommunications licensing framework in Zimbabwe? If not***

	please give reasons. Comments/suggestions are also welcome.

5. STATEMENT OF THE PROBLEM

Technological evolution and evolving consumer needs have rendered the current vertically integrated licensing and business models inadequate and, to some considerable extent, obsolete. This is largely attributable to the restrictive nature of the vertical licence structures which are service specific to the extent that Operators are administratively restricted from fully exploiting the capabilities of the technologies that they would have deployed. There is, therefore, a need to review the current Framework in order to address emerging services, applications, changing consumer needs and new business models that have come along with new developments in the technology, innovation and applications arena. There is also a need to open the market for new partnerships, including wholesale and retail arrangements, to allow Operators to respond to the increasingly shorter investment cycles between Technology Generations and to leverage the decoupling of services from the underlying delivery platforms which is the hallmark of Internert Protocol (IP) based Networks. Operators also need to respond to Over The Top (OTT) services, the emerging Internet of Things (IOTs), Machine-to-Machine (M2M) Communications as well as profit from emerging use cases in various industry verticals across the economy.

Question 3	***Do you agree with the above-stated Statement of the Problem and the Authority`s view on the need to introduce VNO (MVNO & FVNO) licensing in Zimbabwe? If not please provide detailed reasons.***

6. OBJECTIVES OF THE REVIEW

The objective of the review is to develop an enabling licensing structure with the following objectives:

i. To align the licence structures with the sector policy which provides for a converged licensing framework.

ii. To open up the downstream market, in particular retail/end-user market to more players so as to foster competition and innovation in the provision of telecommunication services.

iii. To give operators the flexibility to adjust their business models in line with technological developments and market conditions.

iv. To facilitate effective sharing of infrastructure and scarce resources such as spectrum and rights of way in the provision of telecommunication services.

7. PROPOSED REVIEW OF LICENSING FRAMEWORK

The proposed review of the telecommunication licensing structure entails the amendment of the Postal and Telecommunications (Licence Registration and Certification) Regulations, 2001 which provides for telecommunication licensing to include a new VNO license category. The regulations will be amended by deleting Part XI and substituting it wholly with provisions on VNO licensing. Part 1 of the Second Schedule to the Principal Regulations will also be amended to provide for VNO licence fees and contribution to the Universal Services Fund.

7.1. Proposed Licence Categories

The scope of VNO varies depending on whether the operator lease network capacity and capabilities directly from licensed Public Telecommunications Network Operators, or from third party Virtual Network Operators, who interconnect with licenced Public Telecommunications Network Operators. To cater for different business models, technology evolution and competitive dynamics, the following MVNO Licence categories are proposed:-

7.1.1. Full-MVNO

This is a Mobile Virtual Network Operator which owns and operates the core network and other platforms such as billing and customer services platforms

and relies on Mobile Network Operators for the Access and Distribution Network segments, to provide Mobile Services.

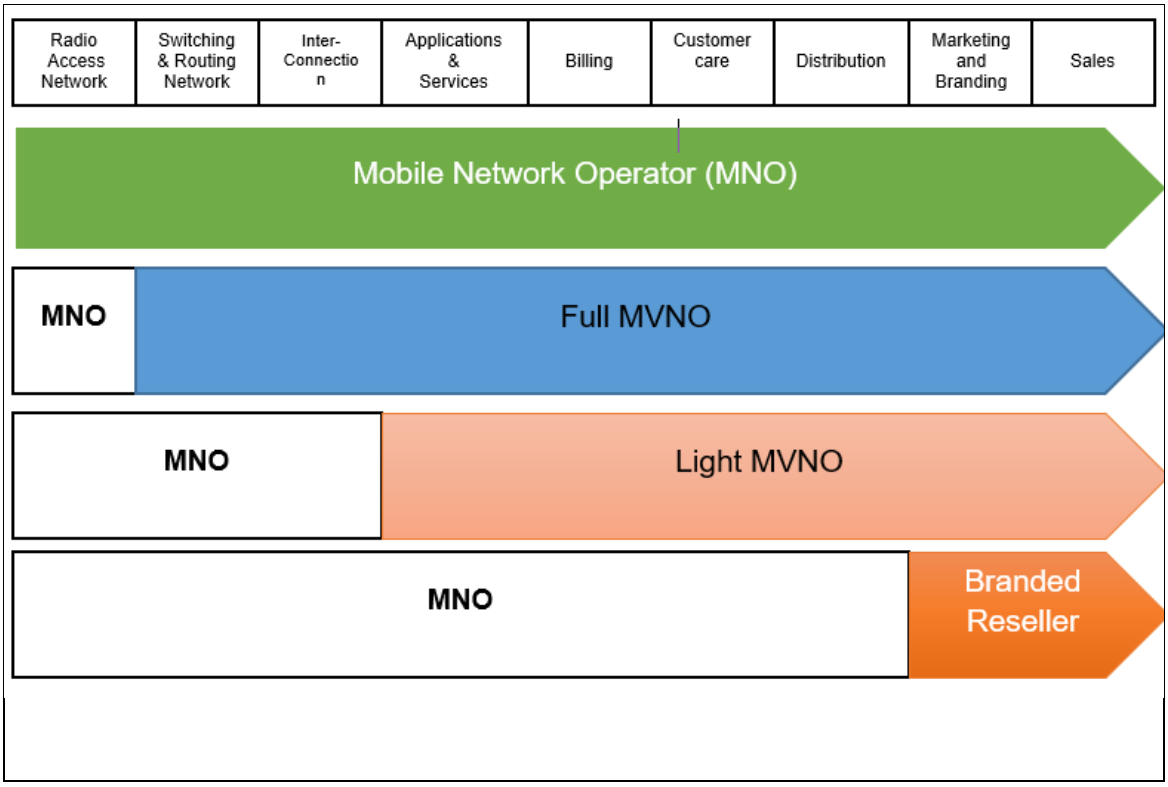
7.1.2. Light-MVNO

This is a Mobile Virtual Network Operator which owns and operates platforms such as billing and customer services platforms and relies on Mobile Network Operators, for the Core, Access and Distribution Network segments, to provide Mobile Services.

7.1.3. Branded reseller

This is a Mobile Virtual Network Operator that uses its brand and its distribution channels, to provide Mobile Network Services riding on the core and access networks and other platforms such as billing, Customer Management Systems and Value Added Services of a Mobile Network Operator.

FUNCTIONAL MODELS	BRANDED RESELLER	LIGHT MVNO	FULL MVNO	MNO
Radio Access Network				
Switching and Routing				
Interconnection				
Applications and Service				
Billing System				
Pricing Capability				
Customer Care				
Distribution				
Marketing and Branding				
Sales				



7.1.4. Mobile Virtual Network Enablers (MVNE)

This is a third party provider that provides MVNO-Enabling Infrastructure as a managed service. An MVNE can host a number of MVNOs, but cannot provide service direct to the end users.

7.1.5. Tier 1 - Internet Service Provider

This is an Internet Service Provider that does not own any telecommunications infrastructure but **gets services directly from Network Service Providers**, for resale. Tier 1 may be regional or national.

7.1.6. Tier 2 - Internet Service Provider

This is an Internet Service Provider that **obtains its internet services from Tier 1 Internet Service Providers** and has no direct access to Network Service Providers. Tier 2 internet Service Providers may be regional or national.

Question 4	***Do you agree with the Authority`s recommendation for a 'Virtual Network Operator' (VNO) licensing framework for Zimbabwe`s telecommunications sector? If not please provide reasons.***
Question 5	***Do you agree with the license categories of the proposed 'Virtual Network Operator' (VNO) framework as stated above? If not please provide reasons.***

7.2. Proposed Licence Fees

The proposed Schedule of the **licence fees** for the different categories are given below:

(i)	Application Fees for any category (non-refundable)	$35.00
(ii)	Mobile Virtual Network Enablers Licence	$30,000.00
(iii)	Full Mobile Virtual Network Operator Licence	$50,000.00
(iv)	Light Mobile Virtual Network Operator Licence	$30,000.00
(v)	Branded Reseller Mobile Virtual Network Operators Licence	$1,000.00
(vi)	Tier 1 Internet Service Provider Licence	
	(a) National	$50,000.00
	(b) Provincial (excluding Harare and Bulawayo)	$5,000.00
	(c) Metropolitan	$10,000.00

	(d) District	$100.00
	(e) Community	$50.00
(vii)	The Tier 2 Internet Service Provider Licence	
	(a) National	$5,000.00
	(b) Provincial	$500.00
	(c) Metropolitan	$1,000.00
	(d) District	$100.00
	(e) Community	$50,00

Question 6	***Do you agree with the proposed Licence Fees for each category as stated above? If not in agreement, please provide reasons.***
Question 7	***Do you think VNOs should contribute to the Universal Service Fund (USF)? If not please provide reasons for your answer.***

8. Numbering Resources

8.1. The provision of electronic communications services though VNO arrangements may involve the use of numbering resources. VNOs that hold the necessary core network elements may, upon request, be granted both national numbering resources in the National Numbering Plan (E.164), for the provision of voice services, and in the Mobile Network Code (E.212) for the provision of SMS services.

8.2. The rights of use of numbering resources will be granted for numbering units or blocks, in accordance with the principles and criteria applicable in the management and allocation of numbering resources and with other terms ancillary to the rights of using the numbering resources that may be stipulated by POTRAZ.

9. Agreement for With Host Network

9.1. In order to start its operations, a VNO needs to draw up a business strategy and an operational model as well as to negotiate and conclude – based on these – an agreement with a Network Operator, an agreement that provides the technical and commercial conditions regarding access to the network for purposes of enabling the respective VNO to provide communications services to its end-users. An MVNO may be implemented by means of an MVNE that can act as a consultant both in the process of negotiating the access agreement with the Network Operator and in consolidating a business plan, in proposing cost-cutting solutions and in offering technical expertise, which may enable the MVNO to focus on a variety of service solutions for its users and on its customer relations.

9.2. Network Operators are expected to negotiate with the would-be VNOs in keeping with the principles of contractual freedom and of good faith.

9.3. The agreement should cover the technical and commercial terms for the business relationship. The agreement shall also provide clauses specific to a Service Level Agreement (SLA) negotiated and agreed upon by the parties.

10. Interconnection Agreements

Companies providing publicly available electronic communications networks and services, including the MVNOs, have the right to negotiate interconnection with other providers of publicly available electronic communications networks and services. In

this context, VNOs that have been allocated numbering resources have the right to negotiate interconnection for the purpose of providing telephony services (call termination), while the rest of the fixed and mobile operators have the obligation to negotiate with a VNO, upon the latter's request, an interconnection agreement for the provision of telephony services.

11. INTERNATIONAL PRACTICE

The emergence of virtual networks in a market is often a result of regulatory intervention designed to lower the barriers of entry and ultimately increase competition, or a strategic decision by existing operators aimed at extending their existing operations and target niche or underserved segments through a second or multiple brands.

Regulatory issues for consideration in licensing MVNOs are:

(a) SIM Card registration requirements
(b) consumer protection
(c) competition and
(d) Service quality.

The Authority is committed to the view that consumers must get the benefit of a variety of services at affordable prices. The principles followed in the recommendation are that the regulatory framework should be light touch, enabling and forward looking in order to encourage genuine MVNOs. The introduction of MVNOs should not result in any reduction of revenue that would accrue to the Government when compared to a situation without MVNOs. It is hoped that these light touch recommendations will facilitate introduction of MVNOs which would help the MNO to widen and deepen its market. Hence, the relationship is symbiotic and benefits consumers, MVNOs and MNOs.

12. International Experience

Virtual Network Operators are increasingly a common feature in both emerging and developed markets where regulators are introducing them in order to boost competition and further their own goals of consumer and business markets. Within Africa, several countries Administrations including Kenya and South Africa have

embraced MVNOs with most prevalent models being Branded Reseller, Light MVNO and Full MVNO. Below are some examples from across the Globe.

12.1. India

India gazetted the prices of MVNO in 2016 and came up with 12 categories of MVNO, ranging between full and light MVNO. The Fees Structure is as follows:

(a) Entry fee – One time non-refundable entry fee not less than 7.5 Cr, Cs. = USD 1,120,545.75. This is the maximum entry fee.

(b) Annual license and spectrum fee which is 8% of Adjusted Gross Revenue (AGR) this is inclusive of the 5% USF levy

(c) From the second year of effective date of authorization, license fee shall be subject to minimum 10% of entry fee

12.2. Kenya

Kenya licensed Mobile Virtual Network Operators, Zioncell, Tangaza Pesa and Fincell. These MVNOs signed agreements with MNOs to use their network infrastructure. To encourage entry into the market, Kenya set low fees for an MVNO license at Kshs 100,000 ($1000 equivalent) and there is also a levy of 0.4 % on the gross annual revenues or Kshs 80,000 ($800) whichever is higher. The application-processing fee is Kshs 5000 ($50).

12.3. South Africa

South Africa has several VNOs including Virgin Mobile, a global MVNO with operations in twelve other countries. Virgin Mobile targets high-end customers, leveraging its global brand value.

FNB Connect is one of the MVNOs on the South African market whose concept is an add-on communication service to their financial services. The MVNO strategy allows FNB to get closer to its customers.

12.4. Saudi Arabia

Virgin Mobile Middle East & Africa (VMMEA) is licensed to provide services in Saudi Arabia. In a shake-up to the kingdom's mobile market, the Communication and Information Technology Commission of Saudi Arabia (CITC) ordered each of the country's three mobile operators to host an MVNO to boost competition.

12.5. Brazil

In Brazil, MVNO regulations came into force in September 2010. Under the new framework, Brazilian companies operating in sectors other than telecoms, including retail, banking, media and sport industries, are allowed to set up MVNO operations.

The primary goal of MVNO regulation in Brazil is stated as to increase competition in the mobile industry by allowing existing operators and new companies to target more efficiently specific market segments or geographical regions. Anatel had chosen to only allow companies headquartered in Brazil and with most of their shares (or shares with voting rights) owned by Brazilian nationals or local corporations. The regulator also chose not to intervene on the issue of pricing, leaving operators and partners to negotiate their deals.

12.6. Other countries

No.	COUNTRY	NUMBER OF MNOs	NUMBER OF MVNOs
1.	Australia	4	22
2.	Denmark	4	16
3.	Finland	4	9
4.	France	4	10
5.	Germany	4	29
6.	Hong Kong	5	7
7.	Ireland	3	7
8.	Italy	4	3

9.	Malaysia	1	4
10.	Netherlands	7	39
11.	Pakistan	7	5
12.	Philippines	8	1
13.	Portugal	4	5
14.	Russia Federation	3	2
15.	Singapore	3	1
16.	Switzerland	6	5
17.	United Kingdom	5	25
18.	United States	13	60
19.	Norway	2	16

13. CONCLUSION

(a) The Authority believes that the regulatory framework in the country should not preclude the introduction of any new service, applications or partnerships.

(b) The Authority is committed to the view that consumers must get the benefit of a variety of services at affordable prices

(c) The framework should be light touch and enabling, to encourage genuine MVNOs. It is hoped that the light touch regulation will facilitate introduction of MVNOs, which would help the MNO to widen and deepen its market.

(d) The introduction of MVNOs should not result in any reduction of revenue that would accrue to the Operators and Government when compared to a situation without MVNOs.

(e) MVNOs have the potential to go closer to the consumers than the MNOs because of their advantage arising out of the size and their focus at the retail end.

(f) The introduction of MVNOs should therefore benefit both the consumers and the Network Operators.