



**Vodacom's written submission in response to the Authority's invitation for comments on the Draft
Bitstream and Shared / full Loop Access Regulations**

[General Notice 940, Government Gazette 36840 of 11 September 2013]

INTRODUCTION

Vodacom (Pty) Ltd ("Vodacom") welcomes the opportunity to comment on the Bitstream and Shared / Full Loop Access Regulations as re-published by the Independent Communications Authority of South Africa ("the Authority") in Government Gazette No. 36840, General Notice No. 940 of 11 September 2013. Vodacom is of the view that Bitstream and Shared / Full loop access are forms of local loop unbundling. It is for this reason that these draft regulations should be referred to as Draft Local Loop Unbundling Regulations, ("hereinafter referred to as the Draft Regulations").

We further confirm our willingness to participate in any further consultative process which the Authority may undertake in this regard.

Our submission is comprised of three parts:

- Part A: Executive Summary
- Part B: Vodacom's general comments on the Draft Regulations.
- Part C: Vodacom's specific comments on the Draft Regulations.

Vodacom's suggested additions are marked with **bold and underlining** and deletions are marked in **~~bold and strikethrough~~**.

PART A: EXECUTIVE SUMMARY

Vodacom recommends that the Authority should build on the work that was performed by the Local Loop Unbundling Committee appointed by the Minister in 2006 and the Authority's own 2011 Discussion Document on the framework for introducing local loop unbundling. The outputs of these two processes recommended that in South Africa local loop unbundling should comprise Full/Shared loop unbundling and Bitstream Access. They further recommended that Full/Shared loop unbundling must be restricted to the copper local loop, while the Authority found that Bitstream Access is a service and not an electronic communications facility.

The current draft regulations seem to have disregarded these recommendations, without providing reasons. We recommend that the Authority should revise the draft regulations and republish them, along with an explanatory memorandum, for another round of public comments.

PART B: GENERAL COMMENTS

Deviation from the process outlined in the Findings Note

On 25 May 2006, the Minister of Communications, Dr Ivy Matsepe-Casaburri, established the Local Loop Unbundling (LLU) Committee chaired by Professor Tshilidzi Marwala with a mandate of recommending suitable LLU models. The LLU Committee tabled its report to the Minister on 25 May 2007.¹ The report recommended Full Loop Unbundling, Line Sharing and Bitstream Access as the preferred models. The report further recommended, amongst other things, that:

- Service providers approved by the Authority ought to have access to the telephone exchange infrastructure whenever necessary
- Regulatory guidelines be established and managed by the Authority to guarantee strategic issues such as quality of the local loop to be optimised for delivery of services.

Based on the LLU Committee report, the Minister of Communications issued a Policy Direction to the Authority and urged it to move speedily with the unbundling process and to complete it by 2011². The policy direction on LLU further urged the Authority to take advantage of the report compiled by the LLU Committee and its recommendations on the proposed unbundling methods. On 22 June 2011 the Authority published a discussion document on “the framework for introducing local loop unbundling”³. Subsequently the Authority published a Findings Note on the Framework for Introducing Local Loop Unbundling (“the Findings Note”).⁴ The Findings Note represents the Authority’s determinations on the issues considered during the discussion document consultation process.

Some of the key determinations from the Findings Note regarding the phased approach to introducing LLU in South Africa, include amongst others:

- *Access to the local loop is mandated by Chapter 8 of the ECA, subject to the provision that such access be financially and technically feasible. However, LLU regulations would need to be made in terms of Section 44(3) (m) of the ECA into “the manner in which unbundled electronic*

¹ The Local Loop Unbundling Committee, “Local Loop Unbundling: A way forward for South Africa”, 23 May 2007

² Government Gazette No. 30308 of 17 September 2007

³ Government Gazette No. 34382, Notice No. 49 of 22 June 2011.

⁴ Published in Government Gazette 34823, Notice No. 889 of 6 December 2011

communication facilities are to be made available” and a Market Review on pricing such facilities would have to be undertaken before fixed line full, shared or sub- loop unbundling could be implemented in practice.

- *Access to the “local loop” refers to the traditional fixed network, and not access to the mobile or fixed wireless network. The Authority will address access to wireless networks in an inquiry and a determination will then be made as to whether to conduct a Market Review into wireless access networks. The Authority accepts that Bitstream is a service and not an electronic communications facility and will not be regulated in terms of Chapter 8 of the ECA.*

The Authority is yet to conduct an inquiry on access to wireless networks and to determine whether a market review is required. Against this background and contrary to its findings, the Authority published the draft Bitstream and Shared / Full Loop Access Regulations for comments on 11 September 2013. Vodacom is of the view that unless an inquiry is undertaken as per the Findings Note the Authority is prohibited from promulgating regulations with regards to Access to Wireless Networks.

Bitstream and Shared / Full loop access are forms of local loop unbundling. Further, the Draft Regulations deviates significantly from the Authority's determinations as contained in the Findings Note, without any explanation being provided. For example:

- Vodacom notes that the scope of the Draft Regulations deviates from the scope stated in the Authority's Findings Note. Vodacom refers the Authority to paragraph 4.2 of the Findings Note on the ICASA Framework for Introducing Local Loop Unbundling which states:

“The Authority determines that for the scope of this inquiry, access to the “local loop” refers to the traditional fixed network, and not access to the mobile or fixed wireless network. The Authority will address access to wireless networks in an inquiry and a determination will then be made as to whether to conduct a Market Review into wireless access networks. The Authority accepts that Bitstream is a service and not an electronic communications facility and will not be regulated in terms of Chapter 8 of the ECA.”

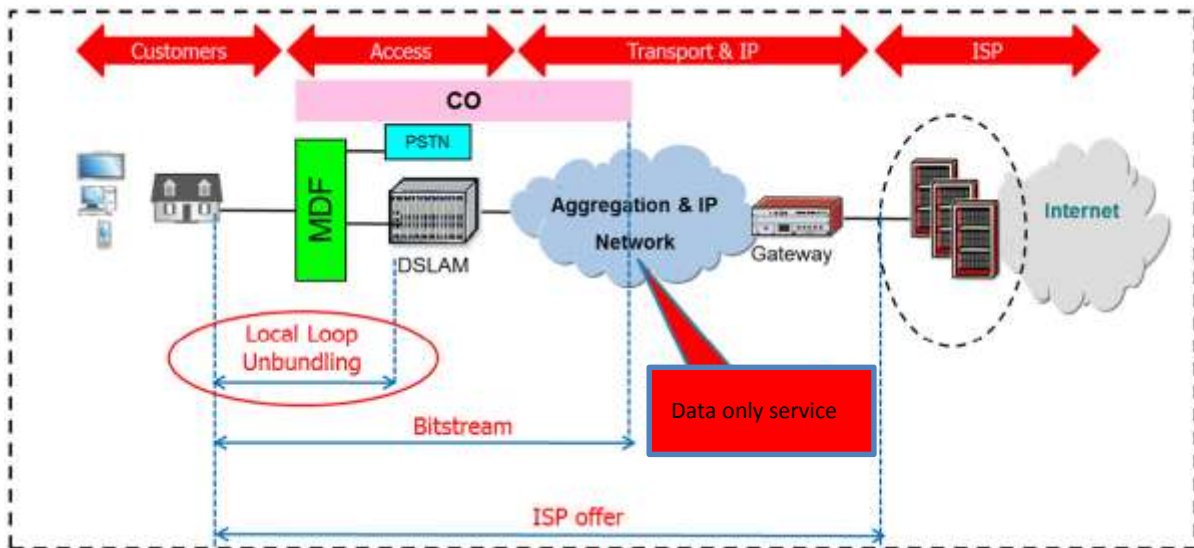
- Further, the Draft Regulations were made in terms of Section 38 instead of Section 43(m) of the ECA as had previously been determined by the Authority.

To this end and for completeness Vodacom requests the Authority to provide reasons for the deviations. Vodacom urges the Authority to align the Draft Regulations with the outcome contained in the Findings Note.

Shared/Full Loop unbundling

Vodacom is of the view that Bitstream access can apply to any network while Full and Shared loop unbundling can only apply to the copper local loop.

The diagram below illustrates local loop unbundling in a copper network.



The diagram shows that Shared/Full Loop unbundling is the process where the incumbent operator makes its local network (the copper cables between customers' premises and telephone exchanges) available to other companies. Operators are then able to upgrade individual lines using DSL technology to offer services such as always-on high speed Internet access direct to the customer. Each pair of copper wires is connected between the customer's premises and the street cabinet or manhole (see definitions) which is located at the side of the road. The street cabinet connects the wires from the customer's premises to a pair of wires from the exchange. Inside the exchange the wires in the external cable are terminated on the main distribution frame (MDF) and then are cross connected (or jumpered) to the internal exchange equipment. The wires connected to the MDF may then be connected via an internal tie cable from the MDF to the Handover Distribution Frame (HDF) which is adjacent to the OLO's

equipment. The HDF is used to terminate the cable from the exchange and to make the pairs available to the OLO.

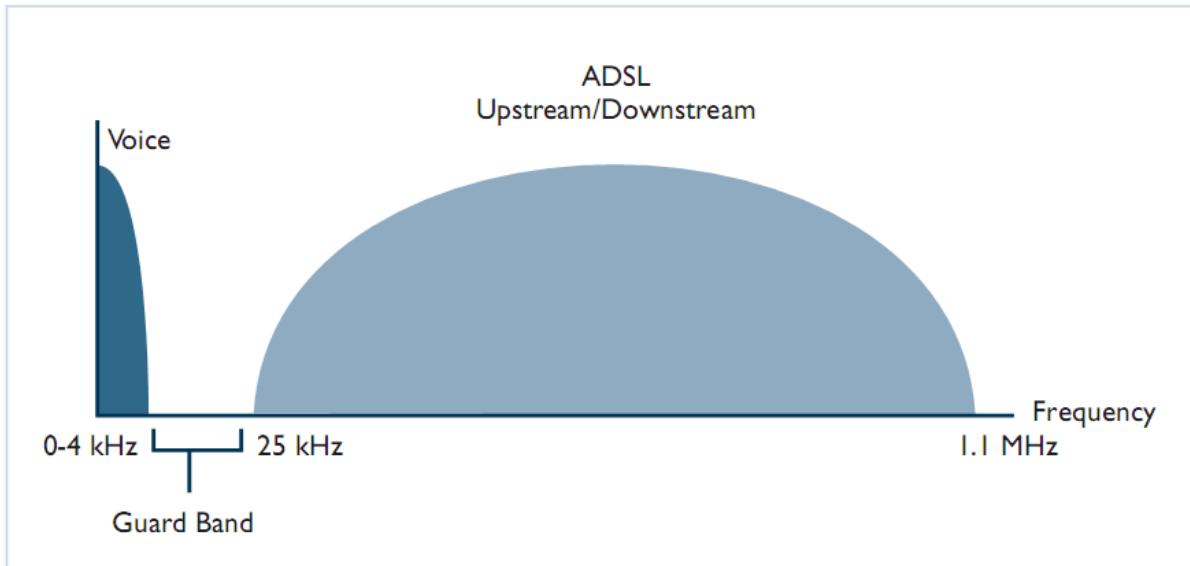
Vodacom is of the view that in the mobile network there is no specific local loop that can be practically unbundled since the radio access network is not dedicated to a single user but is a shared resource.

Shared and Full loop unbundling have been restricted to copper in many jurisdictions

Various transmission media are deployed at the local loop to connect to end-users. Examples of transmission media in local loop are copper cables, coaxial cables, optical fibre cables and fixed wireless access systems e.g. DECT.

- Technically, it is only practical to provide direct physical access for an access seeker (Other Licensed Operator or OLO) to a copper transmission medium. This is because copper is the only transmission medium in which a separate physical path can be unbundled for the dedicated use by another operator as explained below.
- In other transmission media, available capacity is shared between many customers, so it is not practical to unbundle a specific local loop. This applies to mobile radio access as well as to fibre to the premises/home (FTTH) equipment.
- For mobile radio access, Bitstream provides the only practical solution for access unbundling because the point of access to a customer for an access seeker is beyond the radio access network equipment and deeper into the network core. Such Bitstream services are achieved by network sharing techniques or roaming. Access unbundling through Bitstream is subject to the Chapter 10 market review process as explained below.
- FTTH unbundling is not practically feasible because the FTTH landscape is fragmented where each FTTH provider covers a limited footprint and furthermore is predominantly on Gigabit Passive Optical Network (GPON) technology that cannot be unbundled. Bitstream may be technically feasible but again, it is subject to the Chapter 10 market review process.

Digital Subscriber Line (DSL) is a broadband connection that uses the existing telephone line to provide high-speed data transmissions over the twisted copper wire, the so-called "last mile" or "local loop" that connects a customer's home or office to their local telephone exchange. The figure below shows how the analogue and digital frequencies are split.



The DSL transmission technology exploits the fact that all voice telephony signals are below 4 kHz in frequency. DSL modems enable up to 1MHz of bandwidth to be used for transmitting digital data alongside analogue (voice) signals on the same wire by band separation of the signals, thereby preventing the signals from interfering with each other. Different operators can use the different paths of the copper wire to provide voice and data respectively.

Bitstream Access is a service (not a facility)

Vodacom disagrees with the Authority's definition of Bitstream Access as a facility, as the ECA defines electronic communications facilities as follows:

“electronic communications facility” includes but is not limited to any—

- (a) wire;*
 - (b) cable (including undersea and land-based fibre optic cables);*
 - (c) antenna;*
 - (d) mast;*
 - (e) satellite transponder;*
 - (f) circuit;*
 - (g) cable landing station;*
 - (h) international gateway;*
 - (i) earth station; and*
 - (j) radio apparatus or other thing,*
- which can be used for, or in connection with, electronic communications, including where applicable—*
- (i) collocation space;*
 - (ii) monitoring equipment;*
 - (iii) space on or within poles, ducts, cable trays, manholes, hand holds and conduits; and*

(iv) associated support systems, sub-systems and services, ancillary to such electronic communications facilities or otherwise necessary for controlling connectivity of the various electronic communications facilities for proper functionality, control, integration and utilisation of such electronic communications facilities;"

Bitstream, in contrast to the facilities as defined, is the sharing of capacity that requires various different facilities and systems to be connected in order to provide such capacity from the end user to the point of interconnection.

The ECA defines an electronic communications network and electronic communications network service respectively, as follows:

*"**electronic communications network**" means any system of electronic communications facilities (excluding subscriber equipment), including without limitation—*

(a) satellite systems;

(b) fixed systems (circuit- and packet-switched);

(c) mobile systems;

(d) fibre optic cables (undersea and land-based);

(e) electricity cable systems (to the extent used for electronic communications services); and

(f) other transmission systems, used for conveyance of electronic communications;"

and

*"**electronic communications network service**" means a service whereby a person makes available an electronic communications network, whether by sale, lease or otherwise—*

(a) for that person's own use for the provision of an electronic communications service or broadcasting service;

(b) to another person for that other person's use in the provision of an electronic communications service or broadcasting service; or

(c) for resale to an electronic communications service licensee, broadcasting service licensee or any other service contemplated by this Act,

and "network services" is construed accordingly;"

Vodacom therefore submits that in line with the aforementioned definitions, Bitstream access is an electronic communications network service, and not a facility, as Bitstream makes a system of electronic communications facilities available for the provision of an electronic communications service, either for own use or for resale.

In its Findings Note the Authority acknowledged that Bitstream is a service and not an electronic communications facility and will not be regulated in terms of Chapter 8 of the ECA. The Authority's

action is therefore incongruous with the Findings Note. To this end Vodacom requests the Authority to provide reasons for the deviation.

Facilities leasing Regulations *versus* chapter 10 market review

Vodacom supports the Authority's use of the Electronic Communications Facilities Leasing Regulations (Facilities Leasing Regulations)⁵ to unbundle the local loop in so far as it relates to unbundling facilities as defined under chapter 8 of the ECA. Vodacom is of the view that the obligation to lease facilities in terms of section 43(1) of the ECA only applies to electronic communications facilities such as copper, and does not extend to services such as Bitstream.

Should the Authority intend to unbundle services, such as Bitstream access – which fall outside of the definition of a facility in terms of the ECA, then the Facility Leasing Regulations will not be applicable for this purpose. Vodacom believes that the only means of achieving the objectives enunciated under the draft regulations with regard to Bitstream access is to embark on the Chapter 10 market review process, which requires the Authority to:-

- identify and define the relevant market, considering barriers to entry and the dynamic character and functioning of such market;⁶
- assess the effectiveness of competition in such markets taking various factors into account as required by Chapter 10.⁷
- declare licensees with significant market power (SMP) in the relevant market.⁸
- determine pro-competitive terms and conditions applicable to licensees with SMP, if necessary to remedy market failure.⁹

Facilities Leasing Regulations *versus* Local Loop Unbundling Regulations

Vodacom is of the view that the Draft Regulations should address issues peculiar to the local loop whilst the issues pertaining to facilities leasing are best handled through the Facilities Leasing Regulations.

⁵ Published in Government Gazette 33252 of 31 May 2010

⁶ Section 67(4)(a) and 67(6)(a) of the ECA.

⁷ Section 67(4)(b) and 67(6)(b) of the ECA.

⁸ Section 67(4)(d) and 67(5) of the ECA.

⁹ Section 67(4)(c) and (d) as well as 67(7) of the ECA.

Where the Facilities Leasing Regulations are insufficient to deal with leasing of local loop facilities then those provisions in the Facilities Leasing Regulations should be amended.

In light of the above Vodacom recommends the following:

(1) The Local Loop Unbundling regulations should focus on -

- i. obligation to unbundle the local loop, subject to Chapters 8 and 10 as applicable;
- ii. scope of local loop unbundling - Full/Shared loop unbundling and Bitstream access;
- iii. defining the local loop that is subject to Shared/Full loop unbundling and Bitstream Access;
- iv. how these facilities should be offered/accessed;
- v. pricing;
- vi. transparency;
- vii. provision of information to the Authority;
- viii. short title and commencement; and
- ix. penalties

(2) Issues pertaining to the following should be addressed through the Facilities Leasing Regulations:

- i. agreement principles;
- ii. timeframes and procedures for negotiation and conclusion of agreements;
- iii. the procedures for the submission, review and filing of agreements;
- iv. quality and performance levels; and
- v. dispute resolution procedures.

Contraventions and Penalties

Vodacom supports measures to facilitate compliance with prescribed regulations by imposing penalties for non-compliance. However, Vodacom is concerned about the severity of the penalties for failure to comply with the Local Loop Unbundling regulations, particularly in light of the fact that there may be instances where non-compliance or failure to conclude an agreement is due to no deliberate fault of either party. Further, the penalties are excessive and disproportionate particularly when taking into account the offences to be punished and the conduct sought to be deterred.

Vodacom is of the view that failure to comply with the Local Loop Unbundling regulations should fall under the category of offences contemplated under section 17H(3)(d) and (e) of the ICASA Act which provides that it is an offence for a licensee:

(d) to fail to comply with any order made by the Authority in terms of the ICASA Act or the underlying statutes

(e) to act in disregard of any prohibition imposed by order of the Authority in terms of the ICASA Act or the underlying statutes

Section 17H(3)(h) makes it clear that failure to comply with the provisions of section 17H(3)(d) and (e) is punishable by a fine not exceeding R250 000.

In light of the above Vodacom recommends that the Authority revise the penalty provision having regard to section 17H of the ICASA Act, the nature of the transgression, likelihood and ease with which the contravening party will be able to pay the fine, relationship between the fine and contravention and whether there are less restrictive means for ensuring compliance.

PART C: SPECIFIC COMMENTS

1. Definitions

Aggregation Point

Vodacom proposes that the definition of Aggregation Point be removed from the Draft Regulations as it is not used anywhere in the Draft Regulations.

~~“Aggregation Point” means the main distribution frame whether optical or electrical, or radio network interface that connects the local loop with facilities of an ECNS licensee so as to provide voice and data services;~~

As indicated above Vodacom is of the view that Bitstream access is not a facility but a service. This view is shared by the Authority in its Findings Note. In light of this Vodacom proposes the amendment of the following definitions:

“Bitstream Access” means a ~~wholesale product facility~~ provided to an ~~facility access~~ seeker in order to provide data services through a logical ~~circuit connection~~ to an end-user ~~or end-site~~. ~~The Bitstream logical circuits connections~~ shall be aggregated and transported between the ~~facility access~~ seeker and the ~~facilities access~~ provider through a ~~point of interconnection~~ in such a way that the ~~facilities access~~ seeker has full control ~~over the International Standards Organisation Open Systems Interconnect (ISO-OSI) Model Layer 3 (network) elements~~ of the service ~~including routing and addressing provided to its end-users~~.

“Local Loop” means all physical media, ~~including electrical, optical and radio frequency~~, used as the electronic communications facilities for the connection of an end-user or end-site to an access network aggregation point on the electronic communications network.

“Main Distribution Frame (MDF)” means ~~the a~~ wiring rack that connects ~~the local loop subscriber lines from outside the exchange~~ with ~~facilities of the I-ECNS licensee so as to provide services lines inside the exchange~~. ~~A MDF is often found at the local exchange and is used to terminate the copper cables from the end-users' premises. The frame allows these cables to be cross connected to other equipment such as a concentrator or switch.~~

Vodacom proposes the inclusion of the following definitions to enhance clarity of the Regulations as some of the terminology is used without being defined in the Regulations or is likely to be used in future versions thereof.

“Digital Subscriber Line Access Multiplexer (DSLAM)” ~~means an equipment which allows copper lines to support broadband access. It is network equipment, normally located in the local exchange (but may also be installed in a street cabinet) whose function is to aggregate the traffic of several access lines which have modems that are compatible with xDSL technology and relay it through the data network (core). By placing additional remote DSLAMs at locations~~

remote to the telephone exchange, electronic communications companies are able to provide DSL service to locations previously beyond effective range.¹⁰

“Street cabinet” means a cabinet holding network and transmission equipment (copper sub-frame) located in the street (or underground in a manhole) between the telephone exchange and the end-user premises.

2. Purpose of Regulations

Vodacom hereby refers the Authority to our general comments under Part A above, in respect of the proposed focus of the LLU Regulations, and in this regard proposes that the current provision be substituted by the following:

The purpose of these regulations is to define the type of access that is subject to local loop unbundling and how such unbundling should be addressed in terms of these and other legislation and regulations.

3. Facilities to be leased in the provision of access to the local loop

Vodacom submits that it is unnecessary to stipulate the relevant facilities and/or interconnection requirements in this regulation as these are already covered in the facilities leasing and interconnection regulations. To this end Vodacom proposes that this provision be deleted.

4. Requests for electronic communications facilities

Vodacom submits that requests for leasing of all types of electronic communications facilities are adequately addressed in the Facilities Leasing Regulations. This provision should therefore be deleted.

5. Financial feasibility

Vodacom recommends that the provisions on financial feasibility should be addressed through Regulation 4 of the Facilities Leasing Regulations as they contain a provision dealing with financial feasibility. This provision should therefore be deleted.

¹⁰ BEREC Report, March 2010: Next Generation Access – Implementation Issues and Wholesale Products

6. Technical feasibility

Vodacom recommends that the provisions on technical feasibility be addressed through Regulation 5 of the Facilities Leasing Regulations. Vodacom recommends that this provision be deleted.

7. Non-discrimination

Pricing

Vodacom submits that Regulation 7(a)(i) is addressed by Regulation 9(3) of the Facilities Leasing Regulations. Conversely the contents of regulation 7(a)(ii) and (iii) are not addressed by the Facilities Leasing Regulations and apply specifically to the local loop. Vodacom recommends that Regulation 7(a)(ii) and (iii) be retained in the Draft Regulations.

Quality of service

Vodacom submits that the content of Regulation 7(c)(i) is captured under the Facilities Leasing . Vodacom is of the view that this provision can apply generally to all facilities including local loops. To this end this provision should therefore be deleted.

Transparency

Vodacom submits that the provisions on transparency should be included in the Draft Regulations because they are not contained in the Facilities Leasing Regulations and pertains specifically to LLU.

8. Confidentiality

The provision for confidentiality contained in Regulation 8 is generic to all facilities leasing agreements but is not contained in the Facilities Leasing Regulations. Vodacom submits that the confidentiality provision should be included in the Facilities Leasing Regulations and not this Draft Regulations.

9. Local loop facilities leasing information

Vodacom recommends that Draft Regulation 9 (i.e. the provisions on local loop facilities leasing information), except for Regulation 9(b), is sufficiently addressed through Regulation 11 of the

Facilities Leasing Regulations. By the same token Regulation 9(b) should be addressed through an amendment to the Interconnection Regulations, 2010. This provision should therefore be deleted.

10. Agreement Framework and Principles

Vodacom submits that Regulations 10, 11, 12, 13, 14, 16, 17 should be addressed through the Facilities Leasing Regulations as they are generic provisions dealing with facilities leasing agreements. These provisions should therefore be deleted.

11. Contraventions and penalties

Vodacom refers the Authority to our general comments above on Contraventions and Penalties.

12. Short title and commencement

As stated above, Vodacom is of the view that Bitstream and Shared / Full loop access are forms of local loop unbundling. It is for this reason that these draft regulations should be referred to as the Local Loop Unbundling Regulations, 2013.