

SCHEDULE 2

STUDY DOCUMENT ON THE DETERMINATION OF LICENSEES HOLDING A DOMINANT POSITION IN THE MARKET AS CONTEMPLATED IN SECTION 78 OF THE COMMUNICATIONS ACT, NO 8 OF 2009

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Introduction

The Communications Act No. 8 of 2009 (Act) makes provision for heightened regulation on telecommunications licensees that hold a dominant position in the market. In order to determine dominance in the market, it is necessary to define relevant markets. The Authority needs to define markets and determine dominance based on the objectives of the Act and its service and technology neutral service licensing regime.

The adopted approach of the 2013 Dominance Study aimed at minimising the burden on licensees and the Authority while allowing the Authority to implement the objectives of the Act. Only two markets were defined at the time; telecommunication services and broadcasting services. Dominance was only declared for the telecommunications service market and Mobile Telecommunications Limited (MTC), Powercom (Pty) Ltd t/a Leo (Leo) and Telecom Namibia Limited (Telecom Namibia) were declared dominant as published in *Government Gazette* No. 5201 Notice No. 167 dated 29 May 2013.

Section 78 of the Act provides that the Authority must hold a hearing every three years in order to determine which licensees hold a dominant position in the market. The purpose of this study document is therefore to form the basis for the determination of dominance in the telecommunications market in 2015.

Since 2013 the market concentration has increased with Telecom Namibia taking over Leo and new trends have emerged globally. This market study is intended to provide an update to the 2013 market study and the two should be read together.

Background

Telecommunications regulators around the world define markets and determine dominance for these markets in order to develop the appropriate ex ante regulation that promotes fair competition and thus affordable user prices and efficient investment. Arriving at general recommendations for identifying and defining markets however, which would be suitable across different jurisdictions with different broadband ecosystems and different economic conditions is difficult (ITU, 2013). A review of international practice indicates that regulatory interventions do not always lead to the desired outcomes and that the impact varies according to the market conditions present in each country. The reason for this is primarily the appropriateness of the regulatory intervention to the conditions that pertain in a particular country and the regulatory resources and experience of the country in question. This means there is no generally accepted “global best practice” regarding regulatory interventions. Even within common legal frameworks such as the European Union, their recommendations (EU 2003, EU 2007 and EU 2014a) acknowledge that member countries need the flexibility in their implementation to accommodate country specific factors (Tintor et al, 2010). Designing ex-ante regulation however, typically follows four steps (Tintor et al, 2010):

- i. defining relevant markets;
- ii. analysis of defined markets;
- iii. identifying significant market power (SMP) operators; and
- iv. imposing measures and remedies with the aim of preventing monopolistic behaviour.

Each of these four steps is handled differently by regulators around the world and needs to be subject to careful consideration of the local conditions including institutional arrangements, legal

frameworks and sector specific circumstances. In this regard, the ITU (2013) identifies three important aspects that must be considered in any market review:

- i. Market boundaries should not be set based on those customers who cannot switch to alternatives, but those who can. Users with very specific requirements that can only be met by one technology, or users that live in areas where only one network is available do not matter for market definitions.
- ii. Convergence means that different technologies may be linked through a chain of substitution. Whether mobile and fixed broadband services are in the same market depends on the extent to which the differences in the capabilities of mobile and fixed broadband networks matter for end users. This may also change over time. Even if mobile and fixed broadband services were fairly substitutable at present, they may become less so as more bandwidth-intensive services are being developed.
- iii. Markets may be separated as a result of bundling of services even if different technologies could compete on the basis of their technical capabilities.

Defining a market is an essential step in the assessment of dominance which has to be based on a clearly delineated relevant product market (Ecorys, 2013). The use of market definitions within the context of *ex-ante* regulation in the telecommunications sector¹ started in the USA as a result of the 1996 Telecommunication Act and in the EU with the release of the 1997 Notice on the Definition of the Relevant Market which proposed the following definitions (EU, 1997):

- i. “a relevant product market comprises all those products and/or services which are regarded as interchangeable or substitutable by the consumer by reason of the products' characteristics, their prices and their intended use; and
- ii. a relevant geographic market comprises the area in which the firms concerned are involved in the supply of products or services and in which the conditions of competition are sufficiently homogeneous.”

With the purpose of *ex-ante* regulation being to ensure competitive outcomes in order to enhance consumer welfare, several trends are important to keep in mind when defining markets and determining dominance. These are assessed below.

Intra vs inter platform competition

Inter-platform competition takes place when there are two competing infrastructures – in the Northern Hemisphere; this was initially cable TV and copper ADSL. Regulation in this case is directed at supporting competition between these two platforms. Where the networks already had significant penetration and the legacy technology relatively easily upgraded to provide broadband, this proved very successful in the first round of broadband development. This has proved more of a challenge as new high cost fibre networks were rolled out to meet the high demand for high capacity bandwidth. In so far as there is inter-platform competition in developing countries this mostly takes the form of wireless competing with fixed Internet access.

Stimulating intra-modal competition (popularised by Martin Cave in 2003 with his concept of the ladder of investment) means enabling firms to enter the market using wholesale access and then, over time, being incentivised to move up the ladder of investment as they build their own infrastructure

¹ Note that market definitions in other sectors pre-dated the telecommunications sector, so there was substantial precedent for implementing the process in the telecommunications sector.

(Berkman, 2010). Competition is established by operators offering the services *via* the same platform.

In a wide-ranging literature review of the impact of the effects of unbundling on performance and investment, the Berkman Centre for Internet and Society found that many of the papers that find no support for the ladder of investment were industry supported or using out-dated data. The majority of independent reviews found an unambiguous positive link between local loop unbundling (LLU) and investment (Berkman, 2010). There is some empirical evidence to suggest that while intra network competition drove the first wave of broadband which was based on the upgrading of existing copper and cable systems, in the second phase of broadband, where new fibre networks had to be built, the benefits of intra modal competition fell away or were masked by the impact of inter platform competition (Middleton, 2008).

Nevertheless, an alternative position to the intra vs. inter-platform debate has emerged that suggests that competition is less established by duplicating trenches, ducts and poles, but by sharing high-capacity basic physical infrastructure (such as fibre) and investing in electronics leading to innovation in processes and services (Berkman, 2010). This approach is manifested in Open Access projects such as Australia's National Broadband Network (NBN) announced in 2009. Berkman (2010) notes that Open Access and unbundling are complementary efforts around a shared common set of slow-moving, extremely high cost elements: the passive infrastructure.

While Inter-platform competition (competing infrastructures) seems to be ideal to promote access and usage of ICTs, Intra-platform competition is often what small countries can reach at best. Establishing intra platform competition is even then often not possible because of market size and investments required to compete. Stuck with a single company owning the infrastructure, regulators then intervene to create a situation that leads to outcomes similar to a competitive environment. These include structural or functional separation between wholesale and retail operations of the incumbent operator, local loop unbundling in various forms and setting price caps for wholesale prices.

Fixed-Mobile - Fixed-Wireless Broadband Substitution

Few markets around the world have included mobile broadband and fixed networks in the same market. This is mostly due to the fact that in these countries, fixed and mobile have significantly different utilisation by end-consumers: consumers use mobile broadband to remain in contact (the concept of ubiquitous connectivity) and use fixed networks for high bandwidth applications (ITU 2013). Fixed provides high bandwidth, high capacity access, while mobile provides mobility. In developed economies, mobile is generally seen as a complement to fixed. Those countries where mobile is a complementary service have not included mobile broadband in the Wholesale Broadband Access (WBA) market. Examples of countries that exclude mobile broadband from WBA include Ireland, the United Kingdom (UK), Portugal and Finland. Ireland, for example, found that consumer utilisation of mobile broadband was significantly different and that consumers used fixed for bandwidth intensive applications (BEREC, 2010).

In the UK, OFCOM found that the WBA market included fixed networks (copper and fibre) and not wireless, i.e. excluding fixed wireless and mobile broadband (Ofcom, 2013). In Finland and Portugal, the regulator found that WBA market included DSL, cable and fibre. The reasons for findings excluding mobile broadband from the WBA market are (BEREC, 2010):

- i. significant price differences between mobile and fixed broadband;

- ii. differences in maximum download speed;
- iii. differences in terms of traffic limits (i.e. data caps); and
- iv. absence of mobility for fixed networks.

Within the European Union (EU), only the Austrian regulator found that mobile broadband was in the same market as DSL and that mobile broadband was effectively a substitute for fixed access (ITU, 2013). However, the regulator did distinguish between residential and business broadband. In the business market, there is a wholesale market for DSL only that excludes mobile broadband (BEREC, 2010). There were several reasons for the Austrian regulator's finding (ITU, 2013):

- i. Austria had the strongest growth in mobile broadband in the EU;
- ii. no significant difference in use between fixed broadband and mobile broadband; and
- iii. download speeds were broadly similar.

Finally, the regulator found that mobile broadband was cheaper and therefore that around 10% of consumers had moved to mobile broadband from fixed broadband, showing that there was substitution between mobile broadband and DSL taking place. The regulator found that: "After mobile operators lowered prices for mobile broadband significantly in the beginning of 2007, the growth of fixed broadband lines slowed down significantly and even went to (almost) zero."²

Looking at the Fixed Wireless Access (FWA) market, Portugal, France, Ireland and Denmark have excluded FWA from the WBA market. The reasons for doing so were (BEREC, 2010):

- a) significantly different tariffs;
- b) different download capacity and broadband coverage;
- c) different functions available; and
- d) different investment costs to build a new FWA network.

By contrast, Finland included FWA in the WBA market on the basis that FWA provided an indirect constraint in sparsely populated areas which enabled competitive retail pricing compared to DSL connections (BEREC, 2010).

In Namibia fixed mobile substitution is a unidirectional relationship. Mobiles substitute or complement fixed lines but in reverse fixed lines cannot substitute mobiles. The regulatory treatment and the inclusion or exclusion of fixed-wireless differs from country to country. For Namibia the best approach is to define fixed and mobile end user access as separate markets due to the dominance of one operator in each of these markets.

Focus on Wholesale markets

The European Commission (EU, 2014a, b) is conducting a third review of markets that are susceptible to ex ante regulation. The findings of the third review are not yet confirmed. The

proposed market definition of 2014 only includes wholesale markets, while the defined markets of the 2003 and 2007 included both retail and wholesale markets (see Table 1).

Table 1: List of broadband markets susceptible to ex ante regulation					
Recommendation 2003/311/EC		Recommendation 2007/879/EC		Recommendation 2014	
1	Access to the public telephone network at a fixed location for residential customers.				
2	Access to the public telephone network at a fixed location for non-residential customers	1	Access to the public telephone network at a fixed location for residential and non-residential customers.		
3	Publicly available local and/or national telephone services provided at a fixed location for residential customers.				
4	Publicly available international telephone services provided at a fixed location for residential customers.				
5	Publicly available local and/or national telephone services provided at a fixed location for non-residential customers.	2	Call origination on the public telephone network provided at a fixed location.		
6	Publicly available international telephone services provided at a fixed location for non-residential customers.	3	Call termination on individual public telephone networks provided at a fixed location.	1	Wholesale call termination on individual public telephone networks provided at a fixed location
7	Retail leased lines (up to and including 2Mb)	–		–	
11	Wholesale unbundled access (including shared access) to metallic loops and sub-loops for the purpose of providing broadband and voice services.	4	Wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.	3	a) Wholesale local access provided at a fixed location b) Wholesale central access provided at a fixed location for mass- market products
12	Wholesale broadband access (bitstream at fixed location)	5	Wholesale broadband access (bitstream at fixed location)		
13	Wholesale terminating segments of leased lines.	6	Wholesale terminating segments of leased lines, irrespective of the technology used to provide leased or dedicated capacity.	4	Wholesale high-quality access provided at a fixed location
14	Wholesale trunk segments of leased lines.	–		–	
15	Access and call origination on public mobile telephone networks, referred to (separately) in Annex I(2) of the Framework Directive in respect of Directives 97/33/EC and 98/10/EC.				
16	Voice call termination on individual mobile networks.	7	Voice call termination on individual mobile networks.	2	Wholesale voice call termination on individual mobile networks
17	The wholesale national market for international roaming on public mobile networks.				
18	Broadcasting transmission services, to deliver broadcast content to end users.				
Source: EU (2003)		Source: EU (2007)		Source: EU (2014)	

While a review of markets susceptible to ex ante regulation is required by EU legislation every few years, the reason for the review in 2014 was to assess the impact of new technologies, specifically mobile broadband including LTE, the impact of bundling by providers (Internet, mobile, TV etc.), and to increase the focus on areas where competition is not effective.³

Also, the EC is committed to a process of reducing the regulatory burden, especially on smaller states. At present, the regulatory burden of the framework directives is estimated at Euro27 million (or around N\$ 400 million) per member state (Ecorys 2013, p. 183). Based on this rationale, the EU has been reducing the number of markets that are susceptible to ex ante regulation and it seems probable that the 2014 review will reduce the number of broadband markets further to two from three, entirely focusing on fixed wholesale end user access.

A general trend is to limit regulatory interventions to the wholesale level. In the EU mobile retail markets are considered to be sufficiently competitive and a perspective is thus no longer defined for ex-ante regulation. This competitiveness has not been reached for most African countries and ex ante regulation for retail markets may still be required. Dominant operators may use predatory pricing, for example, to distort competition and discourage market entry.

Market concentration in Namibia

Namibia has only two operators with national networks for mobile and only one for fixed (wired) services. Fibre to the home (FTTx) is offered currently by Telecom Namibia. xDSL services lags behind technological advances in other countries such as South Africa or Europe (VDSL2 e.g.).

The sector is highly concentrated with the national operators (Mobile Telecommunications Limited (MTC) and Telecom Namibia Limited) making up more than 97% of the assets and 91% of revenues.⁴

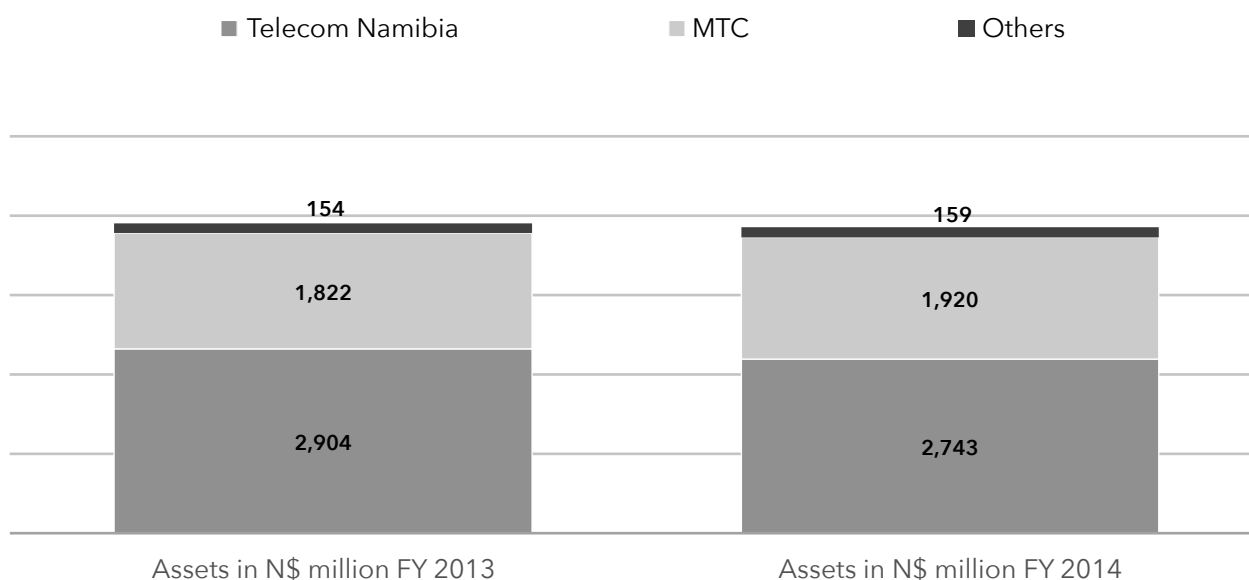


Figure 1: Assets in N\$ million for financial year ending in 2013 and 2014 (company not group)

³ See Digital Agenda for Europe: Update of the 2007 Recommendations on the list of markets relevant for ex ante regulation.

⁴ In the category "Others" in the table below, competitors are Paratus Telecommunications (Pty) Ltd., Telepassport (Pty) Ltd, Dimension Data (Pty) Ltd, MWireless (Pty) Ltd t/a AfricaOnline Namibia, SALT IT (Pty) Ltd, MTN Business Solutions (Namibia) Limited and Bidvest Namibia Information Technology (Pty) Ltd.

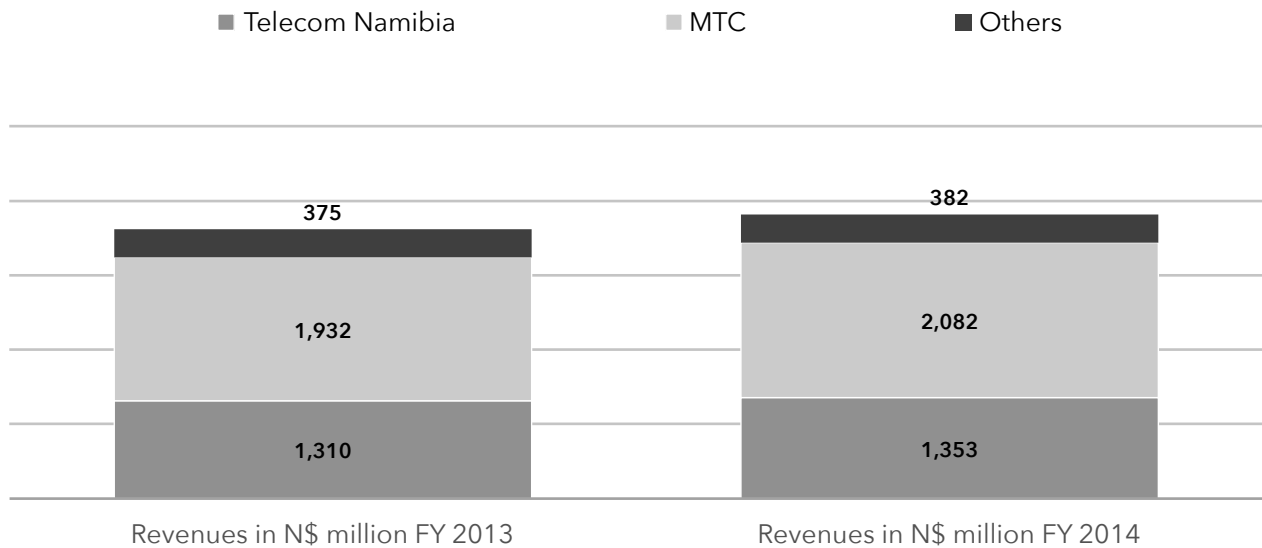


Figure 2: Revenues in N\$ million for financial year ending in 2013 and 2014 (company not group)

Telecom Namibia and MTC clearly dominate the sector. At the same time both operators have a factual monopoly. Telecom Namibia is the only operator with a fixed (wired) end user access network and is the only operator providing national data connectivity based on own infrastructure. While both Telecom Namibia and MTC also operate a national mobile telephone network, only MTC has sizeable traffic. MTC market share of on-net traffic is above 99% and of total traffic above 98% since July 2013.

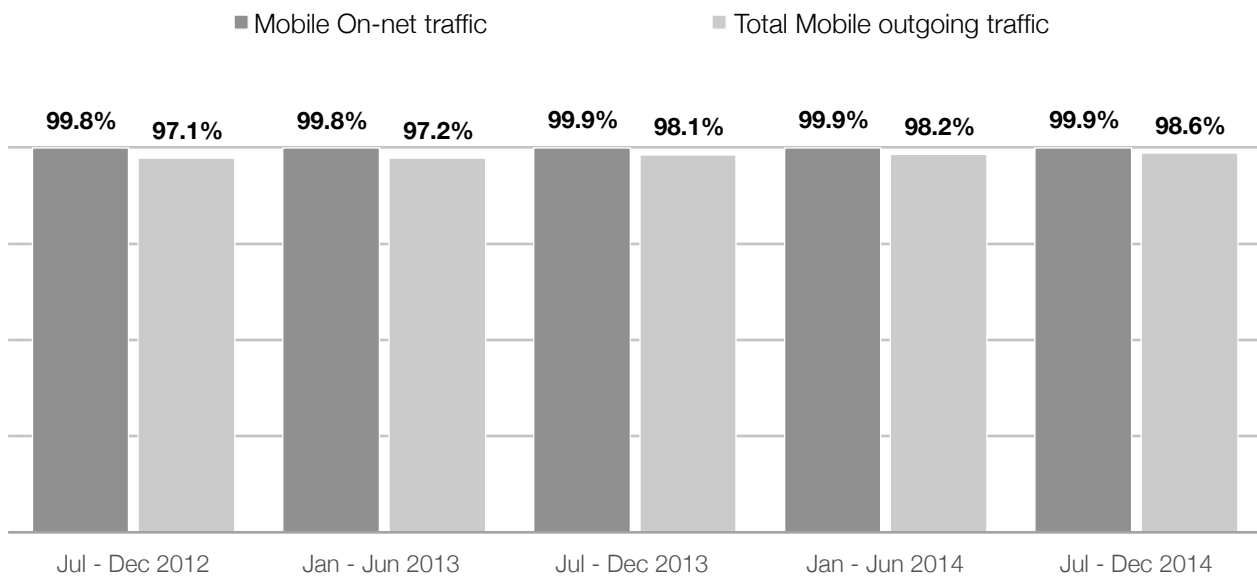


Figure 8: MTC's market share of total mobile traffic

MTC's national mobile network is further nearly five times the size of Telecom Namibia's network, 1,100 compared to 258 GSM base stations in December 2014.

Since the last market study was conducted the only fully privately owned operator, Leo, has been acquired by Telecom Namibia thus leading to the same market structure as before liberalisation in 2005. The market study of 2013 only defined 2 markets:

1. Broadcasting,
2. Telecommunication.

Three operators were dominant in the telecommunication sector (Leo, MTC and Telecom Namibia, and no dominance was declared for the Broadcasting sector.

Due to the increased market concentration, the market definition should be changed to allow nuanced ex ante regulation. Telecom Namibia and MTC being dominant for any telecommunication services, as in the existing market definition, may limit competition between the two operators.

It may also be a disincentive for a new entrant that is planning to roll out a national network, which may fear to be declared dominant from the start. This discussion paper thus proposes to define five markets and adopt a more granular approach to new proposed dominance regulation. Splitting mobile from fixed line markets, would for example, make each operator only dominant in one of the markets but not in the other.

Conclusion

Namibia does not have Cable TV to compete with Telecom Namibia's copper and fibre network. The inter platform competition that drove broadband adoption in the USA, which covered both national transmission networks and end user access at the same time, does not exist in Namibia. Intra platform competition is thus the only objectively attainable objective. Intra platform competition can be enforced by bitstream and local loop unbundling for fixed end user access and through an open access regime for national backbone infrastructure.

It makes sense to define markets for fixed-end-user access and national data connectivity separately, given that the ideal ex-ante intervention differs for these two services.

Due to factual monopolies in Namibia's telecommunication sector, retail markets cannot not yet be excluded from possible ex ante regulation. The Authority however, subscribes to the light touch regulatory principle and will only intervene in the retail market as a last resort.

The Authority thus decided to define five markets as follows:

- a) Market 1: Fixed and Mobile Call Termination
- b) Market 2: Wired End User Access
- c) Market 3: National Data Transmission
- d) Market 4: Wireless End User Access
- e) Market 5: Broadcasting

A description and determination of dominance is given in the sections below.

Market Definition and Dominance

The definition for dominance of the 2013 market study based on section 78 (4) of the Act that will be applied to this study as well is:

- i. A licensee is dominant in a market if:
 - a) It has at least 35% of market share based on revenues;
 - b) It has less than 35% market share but controls some infrastructure that is necessary for the provision of the services in question;
 - c) It has less than 35% market share but has dominance in a related market and therefore is able to exercise power in the market for the telecommunications services in question; or
 - d) It has less than 35% market share but has a position in a market in another country or a relationship with providers in another country that can be used to exercise market power in respect of the relevant class of telecommunications services in Namibia.

Section 78(5) provides that the Authority must also consider the market power that may be exercised by a competitor of the licensee concerned in order to determine whether any of the matters referred to in subsection 4 will give the licensee concerned, market power. The assessment of dominance for each market will use Table 2.

Table 2: Assessment of Dominance for the Telecommunications Market		Operator A	Operator B
1	It has at least 35% of market share based on revenues?	(Yes/No)	(Yes/No)
2	It has less than 35% market share but controls some infrastructure that is necessary for the provision of the services in question?	(Yes/No)	(Yes/No)
3	It has less than 35% market share but has dominance in a related market and therefore is able to exercise power in the market for the telecommunications services in question	(Yes/No)	(Yes/No)
4	It has less than 35% market share but has a position in a market in another country or a relationship with providers in another country that can be used to exercise market power in respect of the relevant class of telecommunications services in Namibia?	(Yes/No)	(Yes/No)
Dominant based on section 78 (4)?		(Yes/No)	(Yes/No)
Do the 4 criteria give the licensee the ability to exercise market power (Section 78(5))?		(Yes/No)	(Yes/No)
Dominant (Yes/No)		(Yes/No)	(Yes/No)

The table checks for the four criteria spelled out in section 78 (4) of the Act. A “Yes” in any of the four criteria would lead to the declaration of dominant for an operator if it allows the licensee to

exercise market power according to section 78 (5). Two “Yes” are required for an operator to be declared dominant.

Market 1- Fixed and Mobile Call Termination

The market for fixed and mobile call termination is a natural monopoly since only the operator owning the subscriber can terminate calls for that subscriber. All operators offering call termination are dominant operators.

The market for wired end user access includes retail and wholesale/reseller services provided via fibre or copper lines. Services in this market include fixed call origination, xDSL, FTTx, local leads or tail ends for leased lines. While Wired End User Access is being offered by a few licensees other than Telecom Namibia, others are mostly reselling Telecom Namibia services. Telecom Namibia is thus the only dominant operator in this market.

Market 3 - National Data Transmission

The market for National Data Transmission covers all forms of prearranged connectivity within Namibia excluding the end user access section. It covers wholesale and retail services. Services included in these markets are leased lines, Ethernet, SDH, PDH, ATM, micro wave, national IP transit and services rendered at submarine cable landing stations. While national data transmission is offered by a few licensees other than Telecom Namibia, others are mostly reselling Telecom Namibia transmission network infrastructure. Telecom Namibia is thus the only dominant operator in this market.

Market 4 Wireless End User Access

The market for wireless end user access includes retail and wholesale services and excludes call termination. It includes call and SMS origination as well as Internet access provided via mobile phone, dongle, wireless modem or router and Wimax.

MTC and Telecom Namibia operate the only national mobile networks. Telecom Namibia’s market share for mobile voice and data combined with wireless less data is well below 35% market share. Additionally, Telecom Namibia’s total number of mobile sites and base stations is only a fraction of MTC’s network.⁵ Telecom Namibia is thus not able to exercise market power in accordance with Section 78(5).

Paratus is currently offering VOIP through Wimax in selected towns. It does not operate a national mobile network and is equally not able to exercise market power.

MTC is declared the only dominant operator for this market.

⁵ MTC’s national mobile network is further nearly five times the size of Telecom Namibia’s network, 1100 compared to 258 GSM base stations in December 2014.

Table 3: Assessment of Dominance for Wireless End User Access market		Telecom Namibia	MTC	PARATUS
1	It has at least 35% of market share based on revenues?	No	Yes	No
2	It has less than 35% market share but controls some infrastructure that is necessary for the provision of the services in question?	Yes		No
3	It has less than 35% market share but has dominance in a related market and therefore is able to exercise power in the market for the telecommunications services in question			No
4	It has less than 35% market share but has a position in a market in another country or a relationship with providers in another country that can be used to exercise market power in respect of the relevant class of telecommunications services in Namibia?			No
Dominant based on section 78 (4)?		Yes	Yes	No
Do the 4 criteria give the licensee the ability to exercise market power (Section 78(5))?		No	Yes	No
Declared Dominant		No	Yes	No

Conclusions

All operators providing call termination are dominant, i.e. MTC, Telecom Namibia and Paratus Telecom. Telecom Namibia is dominant for the Wired End User Access and the National Data Transmission markets. MTC is dominant for the wireless End User Access market.

Table 4: Dominance findings		
Markets		Dominant operators
1	Wired End User Access	Telecom Namibia
2	National Data Transmission	Telecom Namibia
3	Wireless End User Access	MTC

References

- Berec (2010): BEREC Report, Regulatory Accounting in Practice 2010, BoR (10) 48, [http://www.irg.eu/streaming/BoR%20\(10\)%2048%20BEREC%20RA%20report%20in%20Practice%202010_final.pdf?contentId=546971&field=ATTACHED_FILE](http://www.irg.eu/streaming/BoR%20(10)%2048%20BEREC%20RA%20report%20in%20Practice%202010_final.pdf?contentId=546971&field=ATTACHED_FILE).
- Berec (2010). BEREC-RSPG report on market definitions <http://goo.gl/9vAjo8>.
- Berec (2012). Report on the impact of fixed mobile substitution in market definition, 24 May 2012.
- BEREC (2013). Response to the European Commission's questionnaire for the public consultation on the revision of the Recommendation on Relevant Markets, March 2013.
- ECORYS (2013). Future electronic communications markets subject to ex-ante regulation: Final report to DG Connect, 18 September 2013. <http://goo.gl/SUgqw4>.
- EU (2003). COMMISSION RECOMMENDATION 2003/311/EC, <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32003H0311>.
- EU (2007): COMMISSION RECOMMENDATION 2007/879/EC, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:344:0065:0069:en:PDF>.
- EU (2014a). European Commission, [Draft Explanatory Note on relevant markets](http://ec.europa.eu/information_society/newsroom/cf/dae/document.cfm?doc_id=4190) http://ec.europa.eu/information_society/newsroom/cf/dae/document.cfm?doc_id=4190 or <http://goo.gl/yOTdGM>.
- EU (2014b). European Commission, [Draft Recommendation on relevant markets](http://ec.europa.eu/information_society/newsroom/cf/dae/document.cfm?doc_id=4189), http://ec.europa.eu/information_society/newsroom/cf/dae/document.cfm?doc_id=4189.
- ITU (2013). Competition and regulation in a converged broadband world, http://www.itu.int/ITU-D/treg/Events/Seminars/GSR/GSR12/documents/GSR12_BBReport_Koboldt_SMP_8.pdf.
- Middleton, C. A. and Chang, S. (2008). "The Adoption of Broadband Internet in Australia and Canada", Handbook of Research on Global Diffusion of Broadband Data Transmission, pages 820-842.
- Ofkom (2010). Review of the wholesale broadband access markets, 3 December 2010, <http://stakeholders.ofcom.org.uk/binaries/consultations/wba/statement/wbastatement.pdf>.
- Tintor, V., Janković, M. and Milićević, V. (2010). THE LEGAL AND ECONOMIC FRAMEWORK OF EU TELECOM MARKET REGULATION, ECONOMIC ANNALS, Volume LV, No. 185 / April – June 2010 UDC: 3.33 ISSN: 0013-3264, <http://www.doiserbia.nb.rs/img/doi/0013-3264/2010/0013-32641085107T.pdf>.