

GOVERNMENT GAZETTE

OF THE

REPUBLIC OF NAMIBIA

N\$18.00

WINDHOEK - 27 March 2020

No. 7156

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GENERAL NOTICE

No. 105 Communications Regulatory Authority of Namibia: Notice of intention to make a determination of Dominant Position in the Telecommunications Sector

General Notice

COMMUNICATIONS REGULATORY AUTHORITY OF NAMIBIA

No. 105

NOTICE OF INTENTION TO MAKE A DETERMINATION OF DOMINANT POSITION IN THE TELECOMMUNICATIONS SECTOR

The Communications Regulatory Authority of Namibia in terms of Section 78 of the Communications Act, 2009 (Act No. 8 of 2009) and regulation 4 of the Regulations Regarding Rule-Making Procedures published as General Notice No. 334 of 17 December 2010 (hereafter "the Regulations Regarding Rule-Making Procedures") publishes this notice of intention to make a Determination of Dominant Position in the Telecommunications Sector, which contains the following:

A draft of the proposed Market Study on Determination of Dominant Position in the Telecommunications Sector as set out in the Schedule.

The Authority in terms of regulation 7 of the Regulations Regarding Rule-Making Procedures further gives notice herewith that it will hold a public hearing regarding the proposed Market Study as follows:

DATE: TBA TIME: TBA VENUE: TBA 2020

Members of the public are invited to make oral submissions at the aforesaid public hearing subject to the following:

- 1. Any person desirous to make oral submissions at the aforesaid public hearing must deliver written notice thereof to the Authority not later than 10 days before the date of the hearing. Such written notice must be accompanied by concise statement setting out the basis and rationale of the oral submissions.
- 2. Oral submissions made at the aforesaid public hearing must -
 - (a) Include a statement of the name and contact details of the person making the oral submissions and the name and contact details of the person of entity on whose behalf the oral submissions are made, if different;
 - (b) Be clear and concise.
- 3. The aforesaid notice of oral submissions and concise statement must be delivered to the Authority either physically or electronically as follows:
 - (a) By hand to the head offices of the Authority, namely Communications House, 56 Robert Mugabe Avenue, Windhoek;
 - (b) By post to the head offices of the Authority namely Private Bag 13309, Windhoek;
 - (c) By electronic mail to the following address <u>legal@cran.na;</u>
 - (d) By facsimile to the following facsimile number +264 61 222 790; or
 - (e) By fax to email to: 088642748.

Members of the public are further invited to make written submissions to the Authority no later than 30 days from the date of publication of this Notice, in the manner set out below for making written submissions.

Reply comments to written submissions may be submitted to the Authority:

- (a) no later than 15 days after the time for the making of written submissions has lapsed; or
- (b) if the opportunity for the submission of reply comments is published in a subsequent *Gazette*, after the lapse of 14 days from the date of such publication.

All written submissions must -

- (a) contain the name and contact details of the person making the written submissions and the name and contact details of the person or entity on whose behalf the written submissions are made, if different; and
- (b) be clear and concise.

All written submissions must be delivered to the Authority in the manner provided above for the delivery of notices of oral submissions.

H. M. GAOMAB II CHAIRPERSON, BOARD OF DIRECTORS COMMUNICATIONS REGULATORY AUTHORITY OF NAMIBIA

SCHEDULE

PROPOSED MARKET STUDY ON DETERMINATION OF DOMINANT POSITION IN THE TELECOMMUNICATIONS SECTOR

The Communications Regulatory Authority of Namibia in terms of section 78 of the Communications Act, 2009 (Act No. 8 of 2009), makes the Market Study on Determination of Dominant Position in the Telecommunications Sector as set out in the Schedule.

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Introduction

Market definitions and declarations of dominance are a legal requirement: Section 78 (1) of the Communications Act No. 8 of 2009 (the Act) mandates CRAN to undertake a market study to determine if there are dominant operators in the telecommunications market.

The Act makes provision for heightened regulation on telecommunications licensees that hold a dominant position in the market: These provisions aim to prevent abuse of market power and permits the regulator to treat operators differently based on a finding of dominance, and allows for regulatory remedies such as facilities sharing, co-location and re-selling. Remedies include price floors and ceilings and wholesale pricing restrictions, such as interconnect. The regulator can also impose cost accounting models on operators.¹

CRAN's approach to the market studies of 2012 and 2016 has been one of minimal intervention: To determine dominance in the market, it is necessary to define relevant markets. The adopted approach of 2012 aimed at minimising the burden on licensees while allowing CRAN 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 MTC, Leo and Telecom Namibia were declared dominant.² The 2016 market study defined four priority markets, summarised in Table 1.³

¹ The appendix lists the sections of the Act that refer to operators with a dominant position.

² Namibian Government Gazette 2013 No. 5201 - 167.

³ Namibian Government Gazette 28 June 2016, No. 214 No. 6054

	Market	Description
1	Fixed and Mobile Call Termination	The market for fixed and mobile call and SMS termination is a natural monopoly and all operators offering call termination are dominant operators.
2	Wired End-User Access	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.
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 this market are leased lines, Ethernet, SDH, PDH, ATM, microwave, national IP transit and services rendered at submarine cable landing stations.
4	Wireless End- User Access	The market for wireless end-user access includes retail and wholesale services, excluding call and SMS termination, delivered through mobile and fixed-wireless networks. It includes call and SMS origination as well as Internet access provided via mobile phone, dongle, wireless modem or router and Wimax

Table 1: Namibia's 2016 Priority Markets

Increased state control of the ICT sector and increased market concentration require an updated market study: Since the previous market study, market concentration has increased with Telecom Namibia taking over Leo and NPTH taking up a 100% ownership of MTC. Several alternatives for defining markets are being tested and regulatory and competitive outcomes assessed by this study.

Approach

Regulation needs to be guided by the minimal intervention and proportionality principles: Telecommunications regulators around the world define markets and determine dominance in order to design the appropriate ex-ante regulations that promotes fair competition and thus affordable user prices and efficient investment. A consensus exists around two general principles for regulatory interventions (ITU, 2016): the minimal intervention and proportionality principles. The principle of minimal intervention limits interventions to market conditions where sustainable competition does not evolve naturally. The principle of proportionality requires that a regulatory intervention does not cost more than the benefits generated by it.

A forward-looking approach taking into account the geographic dimension and demand and supply substitution is recommended by EU: The European Union (EU, 2018) gives specific recommendations for market studies for national regulatory authorities (NRAs) of its member states:

Principles	Description
Forward- looking	A market study should be forward-looking, and take into account not only the existing market conditions but also foreseeable market developments for the current review period.
Demand and Supply-side Substitution:	NRAs should consider demand-side and supply-side substitution when defining markets. Demand-side substitution defines a market for a group of products and services that could easily be switched by a consumer in response to a small but significant price increase. Supply–side substitution tests whether a small price increase results in a new market entrant.
Geographic	Demand and supply-side substitutions should be analysed along the geographical dimension.

Table 2: Market study recommendations by the European Union (Source: EU, 2018)

The market study process consists of three steps: Each of these steps and principles 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.

Step 1: Identify and define candidate markets: In this step, the ICT sector is analysed with respect to competition and overall performance. A larger number of markets may be defined and alternative market definitions analysed. This entails grouping products and services into markets based on their characteristics, prices and intended use, as well as geographic and functional considerations (e.g., retail, wholesale).

Step 2: Determine whether markets should be considered for ex-ante regulation: In this step, priority markets from a wider list of candidate markets, identified in Step 1, are selected that potentially require regulations. ITU (2016) defines three criteria to determine whether a market should be considered for ex-ante regulation.

- 1. High barriers to market entry exist;
- 2. The market structure does not tend towards effective competition; and
- 3. Competition law alone would not be enough to address market failure.

Step 3: Identify operators with significant market power (SMP): Operators that are dominant and can act independently from competitors are considered to have SMP. The various factors that could be considered for this study are listed in Table 3. The list from the European Union is the most extensive list. Not all factors will be applicable to a market.

Table 3: Factors to be considered for determining SMP

	Factors
ITU 2016	Market share; control of essential facilities; barriers to entry; potential competition; easy access to financial resources; strength of the countervailing power of consumers; economies of scale; economies of scope and vertical integration
EU 2018	Barriers to entry, barriers to expansion, absolute and relative size of the undertaking, control of infrastructure not easily duplicated, technological and commercial advantages or superiority, absence of or low countervailing buying power, easy or privileged access to capital markets/financial resources, product/services diversification (for example, bundled products or services), economies of scale, economies of scope, direct and indirect network effects, vertical integration, a highly developed distribution and sales network, conclusion of long-term and sustainable access agreements, engagement in contractual relations with other market players that could lead to market foreclosure, and absence of potential competition
TRCA 2018	 The products or services that make up a specific market, as well as the geographic scope of that market. The demand side substitutability, in order to measure the extent to which consumers are prepared or able to substitute other products or services for the products or services supplied by the licensee in question. The supply-side substitutability, to determine the extent to which suppliers, other than the licensee in question, are able to supply products or services that provide a competitive alternative to consumers.

Towards a Digital Business Model

Communication between people is moving up the Internet value chain: Deloitte (2016) predicted that a quarter of smartphone users in developed markets will not make any traditional voice calls in a given week in 2016. Instead, calls are made with Over the top services (OTTs) like Skype, WhatsApp and FaceTime, and texts are sent with messaging applications such as Facebook Messenger and WhatsApp. Christian (2017) marked 2015 as the turning point for international voice growth, which turned negative for the first time since the Great Depression. He argues that the decline is a permanent structural shift due to the mass adoption of OTTs. Telegeography reported that, in terms of traffic, OTTs overtook globally regular carrier traffic in 2016 for the first time (Figure 1). International voice traffic will continue declining in 2017 and 2018. OTTs will replace regular voice and messaging services in the near future.



Figure 1: International traffic in billion minutes (Source Telegeography)4

Each segment of the Internet value chain has its own risks, opportunities and regulatory requirements: The Internet value chain has five distinct segments: Content rights, online services, enabling technologies, connectivity and user interface (Figure 2). CRAN regulates the connectivity segment of the Internet value chain. Each segment has its own investment requirements, operational risks, legal implications and revenue opportunities. Traditional services from mobile operators such as voice and SMS have to compete with applications outside the influence of national telecommunication regulators, applications from the public Internet.

Within the connectivity segment a distinction can be made between first, middle and last mile: The Internet enters a country through unseen cable systems and landing stations or via satellite (first mile), passes through that country via fibre routes or microwave links (middle mile) to reach the end user (last mile) wirelessly or via fibre and copper connections.



Figure 2: Internet Value Chain (Source: RIS)

In the digital business model, data replaces voice and SMS: For MNOs it is more an opportunity than a threat, a self-cannibalisation process where data revenues replace voice and SMS revenues, leading to a digital business model. Data is becoming the primary source of MNO revenues and data networks are where the majority of MNOs' investment of the last two decades has gone. The transition from a voice and SMS to mobile Internet access-business model is inevitable (Table 4).

⁴ Telegeography, https://www.telegeography.com/research-services/telegeography-report-database/index.html

	Analogue	Digital		
Business model Service		Connectivity		
Business model	Service	Connectivity		
Metric	Minutes and SMS	bandwidth or throughput		
Cost sensitivity	Distance, duration and location mattered	Time, distance and location insensitive		
Billing Access and usage billing: Detailed billing systems for voice and SMS that can distinguish between off-net / on-net, peak / off-peak		Simple access billing		
Traffic Monitoring	Detailed traffic monitoring as part of the billing system	Usage monitoring limited to data use		
Postpaid subscribers	Detailed vetting to reduce risk or revenue loss and expenses that arise from call termination and subsidised handsets	 Postpaid risk limited to revenue of one billing cycle No external expense risks Prepaid and postpaid do not need to be distinguished by pricing Postpaid may be extended without significant vetting 		
Network infrastructure	GSM 1G and 2G	2.5G, 3G, 4G, 5G		

MNOs will eventually become mobile Internet access providers: MNOs will be distinguishing their products by speed and quality of service, and competing with other forms of access, such as Public WiFi and connectivity in places of work, study and home. MNOs will no longer charge for voice and SMS, only for bandwidth and/or data consumption. Figure 4 shows this transition. Apart from competitive pressure, the trend described in Figure 3 also depends on smartphone penetration and 3G+ network coverage. The migration to a mobile Internet access business model will take longer for countries that have little 3G and 4G coverage and low smartphone penetration.



Figure 3: Mobile operator service revenue trends (source: authors' own graphic)

This transition means that regulators have to revise rules and regulations and need new tools to safeguard fair competition: Two examples are interconnection and quality of service. Interconnection regulation becomes much simpler since call and SMS termination no longer constitute a monopoly for the MNO holding the number. Voice and message termination can be to a number, email address or other forms of digital IDs, independent of the access provider. This means that one could potentially remove termination from the list of priority markets. Quality of service criteria would need to move away from dropped calls, towards bandwidth and data network performance.



Figure 4: 3G and 4G population coverage compared to connections that are capable of accessing broadband in % for Africa (Source GSMA Intelligence)

The digital business model is the logical result of the telecom investments of the last two decades: The mobile business model is inevitably evolving from voice and SMS to a mobile Internet access model. The first generation of mobile phones provided voice services, the second generation brought SMS to consumers, and ever since 2.5G it has been about better and faster data. Social media applications drive broadband adoption and data consumption. This also leads to changing requirements for telecommunication regulators. These trends will be considered when reviewing candidate markets in Step 1.

Market definitions in other jurisdictions

Best practice is to focus on wholesale markets: Four case studies show different approaches to the market definition process. Two case studies, (European Union and South Africa) are best practice applications and others are examples of inappropriate design and implementation (Uganda and Saudi Arabia) based on the minimum intervention principle. Applying the minimum intervention principle is to only define priority markets that can be made more competitive through specific obligations for dominant operators. The best practice is to focus on wholesale markets. When appropriate remedies are imposed based on a determination of dominance for a few wholesale markets, and this leads to the desired outcome, then there is no need to define retail markets as well. If wholesale markets are sufficiently competitive, then retail markets do not need to be defined and dominance declared.

The European Union focuses on four wholesale markets: The European Commission's (EU, 2014) third review of markets that are susceptible to ex-ante regulation included only wholesale markets, while the markets defined in 2003 and 2007 included both retail and wholesale markets (Table 5). Retail markets in the EU became competitive and no longer required ex-ante regulation. The 2014 market definition thus only defines four wholesale markets as priority markets. The EU market definition process over time is a good example of the application of the minimum intervention principle.

Recommendation 2003/311/EC		Recommendation 2007/879/EC		Recommendation 2014/710/EU	
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)		for mass- market products
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.				

Table 5: List of broadband markets susceptible to ex ante regulation

Recommendation 2003/311/EC			Recommendation 2007/879/EC		Recommendation 2014/710/EU	
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)		Sou	rce: EU (2007)	Sou	rce: EU (2014)	

South Africa defined two wholesale and one combined market: ICASA conducted a market study in 2018⁵ and selected three markets as priority markets for a market review, i.e., for determining significant market power. Two are wholesale markets and one is a combined market retail and wholesale. The South African market definitions are another example of the minimum intervention principle. The three market defined by ICASA cover the broadband value chain within South Africa, i.e. national data connectivity and both fixed and mobile end-user access. Mobile end user access was defined as a combined wholesale and retail market. The mobile market definition makes sense as market power in the mobile retail and wholesale markets are based on the same factors, most importantly network coverage and number of subscribers.

Table 6: South Africa's priority markets of 2018 (Source: ICASA 2018)

Markets	Descriptions
Wholesale fixed access	Wholesale supply of asymmetric broadband origination, fixed access services and relevant facilities. Wholesale fixed access, which includes the wholesale supply of asymmetric broadband origination, fixed access services and relevant facilities. This refers to the provision of last-mile connectivity in fixed networks.
Upstream infrastructure markets	Incorporating national transmission services and metropolitan connectivity and relevant facilities. Upstream infrastructure markets incorporating national transmission services (national leased line services providing high-bandwidth connectivity between distant locations within South Africa) and metropolitan connectivity (connectivity between local sites within high-density urban and sub-urban areas and metropolitan points of presence) and relevant facilities.
Mobile services	Retail market and wholesale supply of mobile network services, including relevant facilities. Mobile services, which includes the retail market for mobile services and the wholesale supply of mobile network services, including relevant facilities.

The Uganda Communication Commission defined 13 priority markets, burdening itself and the sector unnecessarily: The Uganda Communications Commission (UCC) undertook a market definition and market power assessment study in 2015. It defined 23 markets, eight retail and 15 wholesale markets (Table 7). Four retail markets and nine wholesale markets were deemed relevant for SMP assessment. The UCC market definitions could have been simplified without losing regulatory authority. Markets 9, 10 and 11 could, for example, have been defined as a single termination market since any number range holder has a monopoly for terminating calls or SMS on that number. Equally markets 20 and 21 and 22 and 23 could have been grouped together. The former because both forms of wholesale access, national roaming and MVNO access require the same infrastructure. The latter since both SMS and USSD access to the customer rests on the operator's customer number. Another option could have thus also been to add markets 22 and 23 to 9, 10 and 11.

⁵ https://www.ellipsis.co.za/wp-content/uploads/2018/08/41847_491-Inquiry-into-priority-markets-in-electronic-communications-sector-Conclusion.pdf

	Candidate Markets	Туре	Relevant for SMP
1	Mobile Access, National Voice Calls and SMS	Retail	Yes
2	Broadband Internet Access from a Mobile Terminal	Retail	Yes
3	PSTN Access and National Voice Calls from a Fixed Location	Retail	No
4	Outbound International voice calls	Retail	No
5	Broadband Internet Access from a Fixed Location	Retail	Yes
6	Business Dedicated Internet Access	Retail	No
7	National Leased Lines	Retail	Yes
8	International Leased Lines	Retail	No
9	Call Termination on Mobile Networks	Wholesale	Yes
10	Call Termination on Fixed Networks	Wholesale	Yes
11	SMS Termination	Wholesale	Yes
12	International Voice Transit and Termination	Wholesale	No
13	Internet Transit	Wholesale	No
14	International Transmission	Wholesale	No
15	Leased Line Trunk Segment	Wholesale	Yes
16	Leased Line Terminating Segment	Wholesale	Yes
17	Dark Fibre Trunk	Wholesale	No
18	Dark Fibre Access	Wholesale	No
19	Cell Site Passive Infrastructure	Wholesale	Yes
20	National Roaming	Wholesale	No
21	Mobile Network Access for MVNO	Wholesale	Yes
22	Mobile Platform Access for SMS-Based Applications	Wholesale	Yes
23	Mobile Platform Access for USSD-Based Applications	Wholesale	Yes

Table 7: Ugandan Market study of 2015

Three markets would have been enough for Saudi Arabia: Saudi Arabia's CITC conducted a market study following the ITU guidelines in 2017 (CITC, 2017). It defined fewer markets than UCC, five retail and ten wholesale markets. Given that STC is dominant for every single market, Saudi Arabia could have had the same regulatory scope by defining just three markets: a general telecommunication market, a telecommunication market for universal service areas, and a market for call and SMS termination. This would have lowered the burden for the regulator and the ICT sector without losing regulatory authority to stimulate fair competition.

Table 8: Markets defined by CITC in 2017

	Candidate Markets	Туре	Dominant service provider
1	Retail fixed access and local and national fixed call services		STC
2	Retail fixed broadband access services		STC
3	Retail business data connectivity services at fixed location	Retail	STC
4	Retail national mobile services within Universal Service areas		STC, Mobily, Zain
5	Retail international call services originating within Universal Service areas		STC, Mobily, Zain
6	Wholesale fixed broadband access services		STC
7	Wholesale physical local fixed access services		STC
8	Wholesale fixed call origination services	whole-	STC
9	Wholesale fixed call termination services		STC, Atheeb
10	Wholesale transit services		STC

	Candidate Markets	Туре	Dominant service provider
11	Wholesale access segment of leased line services and managed net- work transmission services		STC
12	Wholesale trunk segment of leased line services and managed net- work transmission services		STC
13	Wholesale mobile access and origination services within universal Service areas		STC, Mobily, Zain
14	Wholesale mobile termination services		STC, Mobily, Zain
15	Wholesale international call services originating within universal Service areas		STC, Mobily, Zain

Namibia has witnessed the opposite trend to the EU: Initial attempts to open national fixed-line and mobile markets to private sector investment failed, leaving the entire national communication networks in the hand of the NPTH and thus the state. The regulator, CRAN, will need to monitor the retail markets and wholesale markets closely.

South Africa sets an example for Namibia: The South Africa ICT sector is much larger than Namibia's and consists mostly of private sector players, in contrast to Namibia. Combining the mobile retail and wholesale markets into one market also makes sense for Namibia. An exception could be to separate out call and SMS termination, since termination is a natural monopoly for holders of a number range. The advantage of separating out the termination of calls and SMS is that any operator with a number range is then required to interconnect and also obliged to comply with the prescribed termination rates.

Country	Summary
European Union	The EU moved from 18 markets in 2004 to 4 markets in 2014. The minimum intervention principle is applied by only focusing on a few wholesale markets.
South Africa	3 markets are selected for intervention, two for wholesale markets and one for a combined wholesale retail market. The trend towards data only means that South Africa has targeted those markets where competition is likely to have the greatest impact on the broadband value chain.
Uganda	Uganda is an example of violating the minimum intervention principle in a relatively competitive market by identifying 23 markets and declaring dominance for 13 markets. Many of these markets can be combined. Fewer priority markets could have been defined without losing regulatory scope for enforcing fair competition.
Saudi Arabia	Saudi Arabia is another example of overly ambitious market definitions for a market dominated by one operator, STC. STC is dominant in all 15 markets. Defining only three markets would have allowed the regulator the same scope and lowered the burden for the regulator and the industry.

Table 9:	Summary	of case	studies
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Priority markets in Saudi Arabia and Uganda are too detailed: The case studies of Uganda and Saudi Arabia demonstrate that fewer markets could have been prioritised without losing regulatory tools to foster fair competition, while reducing the burden for the regulator and the operators.

Market Concentration in Namibia's ICT Sector

Namibia has only two national telecommunications operators which are entirely owned by the state, through the NPTH holding company. Even if Telecom Namibia and MTC are considered to be independent entities, Namibia's ICT sector remains highly concentrated.

The state controls 90% of ICT sector assets: While smaller operators gained market share in terms of assets, the sector remains highly concentrated with the state, through NPTH, controlling 90% of the assets. Telecom Namibia's assets continue to decline while MTC's assets continue to increase.

The smaller licensees mainly resell Telecom Namibia's services and thus are only competing with Telecom Namibia on the retail level, not on the wholesale level. MTC's assets exceeded Telecom Namibia assets for the first time in 2017. This is due to MTC's network rollout and the decline in company assets of Telecom Namibia.



Figure 5: Assets market shares for the financial years ending in 2013-2018 (company)

The state, through NPTH, controls 85.5% of the sector's revenues: While Telecom Namibia and MTC dominate the industry, some of the other licensees have gained market share in terms of revenue. MTC's revenues increased significantly over the past five years. Telecom Namibia's revenues increased mostly from 2013 to 2016, and declined slightly in 2017.



Figure 6: Revenues market shares for the financial years ending in 2013-2018 (company)

MTC is responsible for 91% of net profit in the ICT sector: The market concentration is even more pronounced when looking at market share in net profit. While revenues and assets are mostly controlled by Telecom and MTC, it is MTC that is responsible for the bulk of net profits in the ICT sector, 91% in 2017. This is a decline from 97% in the previous year, indicating that a few of the small operators started to attain sizeable net profits. Competition has declined in 2017 and the first half of 2018 due to the uncertainty about MTC's ownership and management after the transfer from Africatel Holdings B.V to Samba Luxco S.A.R.L. In 2018, all shares were transferred from Samba to NPTH and therefore MTC is now 100% state-owned.



Figure 7: MTC's share of total net profits (company)

The state, via MTC, dominates ICT sector investment: MTC was responsible for 85% of total additional to property, paint and equipment in the 2017 financial year. In terms of investment, Paratus and MTN are the only serious private sector contenders for growth with a share of 7.4% and 6.4% of total additions to property plant and equipment in the Financial Year 2017.

	FY 2016		FY	2017	FY 2018				
	N\$ million	%	N\$ Million	%	N\$ Million	%			
MTC	184.4	60.4%	203.7	68.2%	289.6	59.8%			
TN Group	69.1	22.6%	59.7	20.0%	121.5	25.1%			
Paratus	46.3	15.2%	17.7	5.9%	62.8	13.0%			
MTN	3.3	1.1%	15.4	5.1%	10.6	2.2%			
Bidvest	1.2	0.4%	2.2	0.7%		0.0%			
SALT	1.1	0.4%	0.0	0.0%		0.0%			
Total	305.4		298.7		484.4	100.0%			
Source:		Annual reports							

Table 10: Addition to Property, Plant & Equipment

Mobile subscriber market concentration remains close to monopoly levels: The Herfindahl-Hirschman Index (HHI)⁶, calculated based on the number of mobile subscribers, is displayed in Figure 8. Following the opening of the mobile market in 2006 with TN Mobile, Powercom/LEO and MTC competing for market share, market concentration declined in 2007 and 2008 but then increased again with Leo taken over by Telecom Namibia and then Telecom Namibia failing to defend its market share. 2017 and 2018 have seen a slight reduction in market concentration with Telecom Namibia regaining market share in terms of subscribers, but still falling short of 2009 levels.



Figure 8: HHI based on active SIM cards (GSMA)

⁶ The HHI is calculated by squaring the market share of licensees and then summing the resulting numbers. It can range from zero to 10,000, where 10,000 reflects a monopoly. Values above 2500 are considered concentrated markets, into which the telecommunication sector clearly falls.

MTC has a market share of 98% of outgoing minutes and 91% of Active SIM cards: MTC's market share in terms of subscribers has hovered above 90% since 2015. Telecom Namibia's highest market share was in Q2 2019 with 9.2% (Figure 9). The maximum than Telecom Namibia managed in terms of market share in out-going calls was 2.1% in Q1 2019 (Figure 10)



Figure 10: Market share of outgoing minutes (CRAN) (* Q2 2018 interpolated for TN)

MTC and TN have extensive network coverage in all of Namibia's regions: Telecom Namibia has 2G population coverage of between 85 and 90% depending on what population model is used. The population coverage was calculated using coverage maps obtained from mobile operators, Enumerator Area (EA) administrative boundary maps and two different sources for the population distribution, Landscan⁷ and WorldPop⁸. The least coverage Telecom Namibia has is in Kavango West. Both MTC and TN are national mobile broadband operators, covering all of Namibia's regions, while MTC clearly has a larger footprint. MTC has a national 3G population coverage of 72-78% and 38% 4G population coverage.

⁷ Landscan estimates the population distribution based on land cover, roads, slope, urban areas, village locations, and high-resolution imagery analysis. The Landscan dataset is developed by the Oak Ridge National Laboratory and funded by the US Department of Defence.

⁸ WorldPop is a similar data source to Landscan: it is based on initial census counts and then updated using a variety of different sources, including satellite imagery and United Nations population estimates. Like Landscan, WorldPop uses its own set of algorithms to weight the population according to the administrative area.

Landsoon	MTC			TN			Combined		
Lanuscan	2G	3 G	4G	2G	3G	4G	2G	3G	4 G
!Karas		63%	42%	71%	45%	20%		65%	43%
Erongo		87%	73%	94%	55%	32%		89%	73%
Hardap		69%	45%	83%	42%	17%		69%	45%
Kavango East		70%	27%	80%	29%	26%		70%	33%
Kavango West		33%	0%	38%	1%	0%		33%	0%
Khomas		99%	92%	100%	72%	48%		99%	94%
Kunene		37%	5%	56%	12%	0%		37%	5%
Ohangwena		65%	4%	94%	7%	7%		65%	9%
Omaheke		46%	22%	51%	23%	1%		46%	23%
Omusati		68%	4%	97%	7%	3%		68%	5%
Oshana		91%	56%	100%	53%	32%		91%	63%
Oshikoto		63%	12%	87%	12%	8%		63%	13%
Otjozondjupa		59%	35%	70%	35%	18%		59%	36%
Zambezi		82%	29%	81%	25%	0%		83%	29%
Namibia		72%	38%	85%	34%	19%		73%	40%

Table 11: Network coverage by region based on Landscan Population mapping

There is no need for geographic markets: A geographic subdivision of the wireless end-user market or the mobile market does not make sense for Namibia given the significant network coverage of the regions, by both MTC and Telecom Namibia.

Table 12: Network coverage by region based on WorldPop population mapping

Wouldman	MTC			TN			Combined		
worldpop	2G	3 G	4G	2G	3 G	4G	2G	3 G	4G
!Karas		76%	45%	80%	51%	20%		76%	45%
Erongo		94%	82%	96%	52%	34%		94%	82%
Hardap		74%	43%	84%	49%	26%		74%	43%
Kavango East		81%	40%	96%	33%	35%		81%	40%
Kavango West		57%	0%	65%	4%	0%		57%	0%
Khomas		98%	92%	99%	71%	46%		98%	92%
Kunene		42%	5%	58%	7%	0%		42%	5%
Ohangwena		67%	7%	94%	7%	4%		67%	7%
Omaheke		56%	23%	62%	34%	1%		56%	23%
Omusati		68%	3%	98%	4%	2%		68%	3%
Oshana		88%	46%	100%	42%	28%		88%	46%
Oshikoto		66%	12%	92%	12%	9%		66%	12%
Otjozondjupa		76%	45%	81%	53%	24%		76%	45%
Zambezi		86%	30%	82%	31%	0%		86%	30%
Namibia		78%	38%	90%	35%	20%		78%	40%

NamPower and Telecom Namibia, both 100% state-owned, control more than 96% of Namibia's Fibre routes: NamPower has 54% and TN 43% of fibre routes. Paratus only operates 4% of Namibia's fiber routes and this only in four regions: Erongo, Khomas, Otjozondjupa and Omaheke. Geographic markets would not make sense at the moment given that Paratus only has between 4-13% of market share in fibre routes in the four regions it operates in. Figure 11 displays the fibre map for Namibia based on submissions from Telecom Namibia, NamPower and Paratus.⁹

D	NamPower		TN		Paratus		Combined
Regions	km	%	km	%	km	%	km
!Karas	3,956	66%	2,013	34%			5,969
Erongo	1,466	49%	1,270	42%	275	9%	3,013
Hardap	1,051	36%	1,886	64%			2,936
Kavango East	611	65%	328	35%			939
Kavango West	726	74%	250	26%			975
Khomas	1,100	47%	934	40%	256	11%	2,359
Kunene	21	3%	813	97%			834
Ohangwena	344	68%	163	32%			507
Omaheke	714	37%	941	49%	248	13%	1,907
Omusati	284	56%	225	44%			509
Oshana	144	66%	74	34%			218
Oshikoto	729	74%	252	26%			981
Otjozondjupa	1,792	59%	1,238	41%	127	4%	3,030
Zambezi	389	57%	290	43%			678
Namibia	13,326	53.6%	10,676	42.9%	906	3.65%	24,856

Table	13. Market	concentration	in	terms	ofkm	fibre routes
raute	15. Warket	concentration	ш	utillis	OI KIII	noic routes

⁹ CRAN received fibre files from Paratus for Walvis Bay, Swakopmund and Windhoek but not for the Trans-Kalahari Fibre route. The length of the route was estimated following the road from Swakopmund (B2) to Windhoek and Windhoek to .Buitepos (B6) using Google Earth.



Figure 11: Fibre Map for Namibia by licensee (Source: CRAN)

Spectrum is still available: MTC holds 64% of the allocated spectrum in the 862-960 Mhz and 44% of the 1710-2170 Mhz bracket. Telecom Namibia holds 36% ad 24% respectively. Telecom Namibia also 73% of the 2170-2690 Mhz brackets. The frequency brackets were created for this study to get an overview of the spectrum allocation. For each bracket, spectrum is still available.

Desistand Name	862-960 MHz		1710-21	70 MHz	2170-2690 MHz	
Registered Name	MHz	%	MHz	%	MHz	%
Mobile Telecommunications Limited *MTC)	36	64%	110	44%		
Telecom Namibia Limited	20	36%	60	24%	212	73%
Converged Telecommunications Solutions (Pty) Ltd					30	10%
Mobile Telephone Networks Business Solutions (Namibia) (Pty) Ltd (MTN Namibia)			40	16%	10	3%
Paratus Telecommunications (Namibia) (Pty) Ltd			40	16%	40	14%
Total allocated Mhz	56		250		292	

Table 14: Spectrum allocation by spectrum bracket

Step 1: Identification of Candidate Markets

Consultations with key telecom licenses were held during the week of 22-25 July 2019: Following the interviews, a letter was sent to all telecom licensees affording them the opportunity to comment on additional markets and alternative market definitions suggested by licensees during the consultation process. The comments and suggestions of the interviews are listed in Table 15.

Table 15: Summary	from the interview	phase and written	comments received

Operator	Interview	Written comment	Summary
TN	Yes	Yes	 TN was of the opinion that the 2016 market definitions are sufficient Additional data was provided
MTN	Yes	Yes	MTN stated that the wired end-user access market does not need to be further split.Additional data was provided
Paratus	Yes	Yes	• Paratus stated that the wired end-user access market does not need to be further split.
SALT	Yes	No	 SALT was happy with the 2016 market definitions SALT raised maintenance and power failure as the main obstacle for their business
NamPower	Yes	No	• NamPower was of the option that national data transmission does not need to be split into inner and intra-city market
Misty Bay	Yes	Yes	• Misty Bay was happy with the 2016 market definitions
IT Guru	Yes	No	• IT Guru was happy with the 2016 market definitions
МТС	Yes	No	 Spectrum was raised as the main regulatory issue MTC stated that dominance determination should include the amount of spectrum held by a licensee MTC suggested replacing wired and wireless end-user access markets with mobile and fixed end-user markets MTC stated that it does not own any fibre MTC suggested VSAT as a separate market
CTS	No	Yes	No comments on market definitions.Additional data was provided
Telepassport	No	Yes	No comments on market definitions.Additional data was provided
Africa Online	No	Yes	No comments

Written inputs requested from ICT sector stakeholders: Table 16 summarises the additional markets and alternative market definitions discussed during the consultation process and for which written comments were requested. Written comments were received by MTN, Telecom Namibia, Paratus, Telepassport, Misty Bay, Africa Online and CTS. The initial period for receiving written comments was increased by two weeks to solicit more responses. MTC specifically had requested during the interview to be afforded to comment in writing but did not submit comments.

Proposed Candidate Markets	Description
Mobile telecommunication	Call and SMS origination as well as Internet access provided via mobile phone, dongle, wireless modem or router than can be moved freely within the coverage area of an operator
Fixed telecommunication	End-user services provided via fibre or copper lines or wireless at a fixed location: fixed call origination, xDSL, FTTx, local leads or tail ends for leased lines, WIMAX and other fixed-wireless services
Fixed-Wireless End- User Access	Including call and SMS origination as well as Internet access provided via mobile phone, dongle, wireless modem or router at a fixed location (no handover between BTS sites) and WIMAX
VSAT services	VSAT services
Wired End-User Access - Copper	End-user services provided via copper lines. Services in this market include fixed call origination, xDSL, and copper-based local leads or tail ends for leased lines
Wired End-User Access - Fibre	End-user services provided via fibre lines. Services in this market FTTx, and fibre based local leads or tail ends for leased lines
National Data Transmission Retail	All forms of prearranged connectivity within Namibia excluding the end-user access section: leased lines, Ethernet, SDH, PDH, ATM, microwave, national IP transit and services rendered at submarine cable landing stations supplied to the end-user that does not have an ECS, ECNS, or Network Facilities licence from CRAN.
National Data Transmission Wholesale	All forms of prearranged connectivity within Namibia excluding the end-user access section: leased lines, Ethernet, SDH, PDH, ATM, microwave, national IP transit and services rendered at submarine cable landing stations supplied to CRAN ECS and/or ECNS licensees.

Table 16: Proposed Candidate markets or alternative market configurations

Namibia's ICT sector is mostly state-controlled: MTC and Telecom Namibia together make up most of ICT sector assets, revenues, profits and infrastructure. For fibre, the biggest players are Telecom Namibia and NamPower.

Defining mobile and fixed markets instead of wireless and wired markets does not change who the dominant operators are: Removing fixed wireless services from the wireless end user market to make it a mobile end-user market would not change the dominance ruling. The same operators that will be found to have a dominant position in the wireless end-user market will also have a dominant position in the mobile market. Equally, adding fixed-wireless to the wired end user market would not lead to a different licensee being found to hold a dominant position.

MTC dominates the mobile market: MTC's mobile market share dropped to 94.8% in 2018 for the mobile market. Telecom Namibia managed to increase its market share to 5.2% during that year.

	FY 2016	FY 2017	FY 2018
Telecom Namibia	108,254	105,480	137,987
	4.5%	4.2%	5.2%
MEC	2,323,533	2,420,896	2,498,160
MIC	95.5%	95.8%	94.8%
Total	2,431,787	2,526,376	2,636,147
Source	Audited financial statement	its	

Table 17: Mobile revenues in 1,000s: Mobile voice, SMS, data, handsets

Fixed-wireless services are not suitable as a separate market: Demand and supply substitutability for fixed-wireless services mean it is not suitable as a separate market. Mobile operators can easily make a mobile service a fixed wireless service and a consumer can easily replace a fixed-wireless service with a mobile service.

Fixed-wireless and wired services are not suitable for inclusion into the same market: From a supply-side perspective, it would not be easy for a fixed-wireless service provider to switch to wired services following a small but significant price increase. The same applies to a wired service provider wanting to offer fixed-wireless services. From a consumer perspective, the substitution would also not be straight forward. Fixed-wireless services can be prepaid while wired services typically are postpaid. Also, the receiving equipment differs between fixed-wireless routers and dongles compared to ADSL and fibre modems. A further factor is the differences in quality of services that a user may be able to choose, 4G versus fibre, for example. Fibre has fundamentally different quality of service parameters.

Fixed-wireless and mobile share infrastructure and regulatory resource requirements: Fixed-wireless is more similar to mobile than to wired services since the underlying infrastructure is similar and both fixed-wireless and mobile require spectrum for service delivery.

Mobile end-user access is where market power is: While mobile services can be made fixedwireless by turning off the handshake from one Radio Access Network (RAN) site to the next, the reverse may not be true if the fixed-wireless services is provided by an operator without sufficient infrastructure to provide mobile services. End-user access is mostly mobile in Namibia with 93.6%. Other forms of wireless end-user access are insignificant. It thus makes sense to define a mobile rather than a wireless end-user access market.

		2016 Dec	2017 Dec	2018 Dec
	Mobile Active SIM cards Prepaid	2,469,351	2,485,187	2,565,976
	Mobile Active SIM cards Postpaid	190,600	195,009	193,317
Wireless	Mobile Data via mobile	1,580,133	1,377,323	2,114,226
end-user	Mobile Data via dongle or router	31,251	35,656	127,073
access	Mobile Active SIM cards All	2,659,951	2,680,196	2,759,293
	VSAT	354	542	960
	Other wireless	14	364	268
	Landlines Residential	66,336	69,213	68,120
	Landlines Business	121,517	123,832	59,645
11 7° 1 1	Landlines all	187,853	193,045	127,744
Wired end-	ADSL	53,381	54,524	54,014
	Fibre to the home	158	252	498
	MetroNet (ethernet)	57	591	496
	Leased lines	9,874	7,621	6,489
	Wind and user connections	251,323	256,033	189,241
	whether end-user connections	8.6%	8.7%	6.4%
Summary	Wireless and user connections	2,660,319	2,681,102	2,760,521
	wineless enu-user connections	91.4%	91.3%	93.6%
	All end-users connections	2,911,642	2,937,135	2,949,762

Table 18: ICT Sector Subscribers in Namibia

Alternative - Copper-based end user access market: Given the nascent status of fibre to the home (Table 18), another approach is to define, instead of a wired end-user access market, a copper-based end-user access market. Though landlines for businesses have halved by the end of 2018, the residential and ADSL marked are still a significant market for Namibia and the underlying infrastructure fully owned by Telecom Namibia.

VSAT Services do not warrant a separate market: The barrier to entry for supplying VSAT services is relatively small compared to other forms of wireless end-user access. The market is small and shared by three licensees: Telecom Namibia, Paratus, Africa Online and MTN Business. The

revenues are below N\$ 20 million in 2018, in an industry where MTC has above N\$ 2 billion and Telecom Namibia above N\$ 1 billion in turnover. There were 960 VSAT installations active at the end of 2018.

Table 19: VSAT Subscribers IN December 2018				
	Subscribers	Market Share		
Telecom Namibia	369	38%		
MTN	156	16%		
Paratus	176	18%		
Africa Online	259	27%		
Total	960			

The Act does not define wholesale: Splitting national data transmission into retail and wholesale markets would need to differentiate between end-users that are licensees and those that are not. If the end-user is a licensee then the service would be considered a wholesale service while if the end-user is not a licensee then the service would be a retail service. Telecom Namibia estimated split is 80% wholesale and 20% retail. The other licensees, apart from Telecom Namibia and NamPower, that offer national data connectivity are mostly resellers. Only Paratus has some fibre for national data connectivity, but less than 4% and not across Namibia but only for one route.



Table 20: Fibre routes in Namibia (Source: CRAN)

Market power for combined National Data Transmission market rests on fibre route ownership: In terms of market power for the wholesale market for national data connectivity, that mostly rests with fibre route ownership. Resellers have little market power. Resellers buy bandwidth at the same prices from Telecom Namibia, and starting from 2019, also from NamPower. Market power of resellers is thus limited.

Table 21: Market share of national national data connectivity market in terms of revenues

	Africa Online	Bidvest	Misty Bay	MTN	Paratus	SALT	Telecom Namibia
Jan-Mar 2018	1.7%	0.6%	0.3%	17.7%	25.7%	0.1%	53.9%
Apr-Jun 2018	1.0%	0.6%	0.4%	16.1%	27.7%	0.0%	54.2%
Jul-Sep 2018	1.2%	0.7%	0.4%	16.6%	28.6%	0.1%	52.6%
Oct-Dec 2018	1.2%	0.7%	0.4%	20.7%	29.3%	0.0%	47.7%
2018	1.3%	0.6%	0.4%	17.8%	27.8%	0.1%	52.1%
Source	CRAN Portal, except Telecom Namibia which submitted figures as part of the market study information request						

In 2018, three operators dominated the market for national data connectivity, Telecom Namibia, Paratus and MTN: Telecom Namibia held 52% market share (Table 19). This is an estimate since the revenues are based on submissions to the CRAN Portal for ethernet and leased line revenues, except for Telecom Namibia which stated a higher figure for national data connectivity in its submission for the market study. The revenue figure in its submission is still well below (64%) what is captured under data revenues in Telecom Namibia's audited financial statements (Table 20). However, given that market power mainly relies on infrastructure ownership it is not necessary to obtain more precise revenue data.

TN	Description	FY 2016	FY 2017	FY 2018
Voice	Line rental, value-added services, calls, VSAT, telephone installations, interconnection	399,055	348,026	336,653
Mobile	Mobile voice, SMS, data, handsets	108,254	105,480	137,987
Data	Backhauling services: mobile operators, Digicon services: mobile operators, Telematics, International/national express routes, Metro Ethernet, Foreign income: data services	372,569	368,525	363,983
IP services	Internet access services, broadband access networks, fixed and mobile - IP/MPLS	503,339	536,783	575,728
Infrastructure and others	Customer premises equipment, directories, site sharing and co-location, structural cabling and indoor/outdoor extensions	138,865	131,666	135,713
IT services	iWay services, fax to e-mail service, e-mail to fax service, projects	10,190	27,897	17,347
Total		1 532 272	1,518,377	1,540,411
Source		Telecom Namibia audited financial statements		

Table 22: Telecom Namibia	evenue Segmentation N\$ 1	000
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Four markets are still enough for Namibia: The 2016 Market Study defined four broad markets that covered the entire connectivity segments of the Internet value chain. In 2019, with even further increased market concentration this approach would still be suitable. Defining markets in more granularity would simply mean having the same operators being dominant for these markets anyway, similar to the case in Saudi Arabia.

Given the high market concentration, a more focused approach may lead to better results: CRAN believes that the best approach for Namibia for the period 2019 to 2022 would be forwardlooking and focusing on selected markets where a declaration of dominance could create a more competitive market. The markets for wired and wireless end-user access will therefore be more narrowly defined as copper-based and mobile end user access.

Forbearance for fibre, fixed-wireless and VSAT: Defining slight more narrow markets with mobile and copper-based end-user access means that for some services no market will be defined intentionally. Fibre to the home (FTTh) is still in its infancy in Namibia and VSAT too small a market. The fixed-wireless market is also small and barrier to entry are lower compared to mobile. Dominance determination does not promise to increase competition in the fixed-wireless market.

Step 2: Determination of priority markets

Four priority markets are defined for market assessment: national data transmission, copperbased end-user access, mobile end-user-access and call and SMS termination.



Figure 12: Identified priority markets as part of the Internet Value Chain (Source: RIS)

All four markets satisfy the three criteria principle for considering markets for ex-ante regulation (ITU, 2016): High entry barriers exist for each market. Currently neither of the markets tends naturally towards effective competition and competition law would not be enough to address market failure within the next three years, until the next market review is undertaken.

		High barriers to market entry exist?	The market structure does not tend towards effective competition?	Competition law alone would not be enough to address market failure?	Inclusion in market study?
1	National Data Transmission	Yes	No	No	Yes
2	Copper-based End-User Access	Yes	No	No	Yes
3	Mobile End-User Access	Yes	No	No	Yes
4	Call and SMS Termination	Yes	No	No	Yes

Table 23: Three criteria test for ex-ante regulation

Step 3: Identify operators with SMP

The definition for dominance of the 2012 and 2016 market studies were based on Section 78 (4) of the Act in combination with the Competition Act of 2003 and the rules made for this Act.¹⁰

The same definitions will be applied in this study here. A licensee is dominant in a market if: It has at least 35% of market share;

It has less than 35% market share but controls some infrastructure that is necessary for the provision of the services in question;

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

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 CRAN 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 the following table.

¹⁰ Criteria to be applied for determining dominant position in market - Part 7, 36, Government Gazette No 4004, 3 March 2008. https://laws.parliament.na/cms_documents/gg-4004-02b0ec499d.pdf.

		Operator A	Operator B	••••
1	It has at least 35% of market share based on revenues?	(Yes/No)	(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)	(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)	(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)	(Yes/No)
Do the 4 criteria give the licensee the ability to exercise market power (Section 78(5))?		(Yes/No)	(Yes/No)	(Yes/No)
Dec	ared Dominant	(Yes/No)	(Yes/No)	(Yes/No)

Table 24: SMP in the market for National Data Transmission-1

The Table 24 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 dominance for an operator if it allows the licensee to exercise market power.

Communications Act No. 8 of 2009

78 (4) Subject to subsection (5), the Authority must find a licensee to be dominant if it is of the opinion that -

(a) the licensee in question has such a share of the market in the class of telecommunications services in question, that it is able to act independent of its competitors;

(b) the licensee controls some infrastructure that is necessary for the provision of the services in question; (c) the licensee in question is dominant as provided in paragraph (a) or (b) in respect of a class of related services (which need not be telecommunications services) and the licensee can use that dominance to exercise power in the market for the telecommunications services in question; or

(d) the licensee in question 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.

78 (5) The Authority must 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 as contemplated in subsection (4).

Government Gazette No. 4004, 3 March 2008: Rules made under Competition Act, 2003 Criteria to be applied for determining dominant position in market

36. (1) An undertaking has, or two or more undertakings have, a dominant position in a market if -

(a) it has or they have at least 45% of that market;

- (b) it has or they have at least 35%, but less than 45%, of that market, unless it can show that it does not have market power; or
- (c) it has or they have less than 35% of that market, but has or have marker power.

(2) For the purposes of this rule "market power" means the power of an undertaking or undertakings to control prices, to exclude competition or to behave to an appreciable extent independently of its competitors, customers or suppliers.

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. The markets include any form of backhauling services for mobile operators, leased lines, Metro Ethernet, micro wave, national IP transit, services rendered at submarine cable landing stations and relevant facilities.

		Telecom Namibia	Nam- Power	Paratus
1	It has at least 35% of market share based on revenues?	Yes	No	No
2	It has less than 35% market share but controls some infrastruc- ture that is necessary for the provision of the services in ques- tion?	Yes	Yes	Yes
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	NA	No	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?	NA	No	No
Do t pow	he 4 criteria give the licensee the ability to exercise market er (Section 78(5))?	Yes	Yes	No
Dec	lared Dominant	Yes	Yes	No

Table 25: SMP in the market for National Data Transmission

Telecom Namibia and NamPower have a dominant position in the market for National Data Transmission: Telecom Namibia has more than 35% market share and a national fibre network and is thus dominant. NamPower was only licensed in 2018 and will be providing services to all licensees going forward. Given its extensive fibre national fibre network, it is also a dominant operator. Paratus is not dominant despite its newly build fibre route. Firstly, Paratus only operates in four regions and its fibre routes constitute less than 4% of total fibre routes. Secondly, Telecom Namibia and NamPower have routes alongside Paratus's fibre route (Table 18). Other licensees in the market are only resellers and have thus little market power.

Mobile End-User Access

The market for mobile end user access includes retail and wholesale services excluding call termination delivered through mobile networks: It includes call and SMS origination as well as mobile Internet access provided via mobile phone, dongle, or router.

		Telecom Namibia	MTC
1	It has at least 35% of market share based on revenues?	No	Yes
2	It has less than 35% market share but controls some infrastructure that is necessary for the provision of the services in question?	Yes	Yes
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	NA
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	NA
Do the 78(5))?	4 criteria give the licensee the ability to exercise market power (Section	Yes	Yes
Declar	ed Dominant	Yes	Yes

Table 26: Assessment of Dominance for Wireless End User Access market

MTC and Telecom Namibia operate the only national mobile networks, and both, MTC and Telecom Namibia, are dominant: Telecom Namibia's market share for mobile voice and data is well below 35% market share but it does operate a national mobile network and also has market power through its national fibre network for mobile data.

Copper-based End-User Access

The market for copper-based end-user access includes retail and wholesale/reseller services provided via copper lines. Services in this market include fixed call origination, xDSL, and copper based local leads or tail ends for leased lines. Only Telecom Namibia has copper infrastructure and is thus the only dominant operator.

Call & SMS Termination

The market for fixed and mobile call and SMS termination is a natural monopoly and all operators offering call and SMS termination are dominant operators.

Recommendations

All operators providing call and SMS termination are dominant. Telecom Namibia is dominant for the Copper-based End-User Access and the National Data Transmission markets. MTC is dominant for the mobile End-User Access market. NamPower is dominant for the National Data Transmission market.

Markets		Dominant operators
1	National Data Transmission	Telecom Namibia, NamPower
2	Copper-based End-User Access	Telecom Namibia
3	Mobile End-User Access	MTC, Telecom Namibia
4	Fixed and Mobile Call & SMS Termination	All operators with a number range

Table 27: Dominance Finding

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Appendix

Table 28: Sections in the Act No. 8 of 2009 referring to dominant position

No	Act	Objective
33(2)	Any abuse of individual or collective dominant position by one or more persons in a market for the supply of telecommunications or broadcasting services or any product used in connection with these services is prohibited.	Prohibit abuse of market power
38(11)	The Authority may impose specific obligations on a licensee when the licensee has a dominant position in relation to the provision of any class of telecommunications services.	Provides the regulator with the discretion
38(14)	When the Authority acts under subsection (12) or (13), it may $-a$) make distinctions between licensees who are dominant and those that are not, or between services for which licensees are dominant and those for which they are not;	to treat operators differently based on dominance
44(2)	The Authority may restrict the provision of telecommunications equipment by a licensee that is dominant in a market relating to the use or provision of such equipment by prescribing such accounting rules and other regulatory safeguards as it may consider necessary for the promotion of competition, after having followed a rule-making procedure.	Fosters competition by providing non- dominant operators an advantage in equipment they may use to provide services
48(2)	It is the duty of a carrier who has a dominant position with relation to some class of telecommunications services to: (a) provide subject to subsection (3), to any requesting carrier, nondiscriminatory access to network elements on an unbundled basis at any technically feasible point on rates, terms, and conditions that are just, reasonable, and nondiscriminatory in accordance with the terms and conditions of the agreement between them and the requirements of this Act; (b) provide subject to subsection (5), on rates, terms, and conditions that are just, reasonable, and nondiscriminatory, for physical co-location of equipment necessary for interconnection or access to unbundled network elements at the premises of the dominant carrier, if such network elements relate to the market segment in which the carrier in question is dominant.	Requires dominant operators to share facilities, co-locate and re-sell. Places a limit on what operator may charge for such services
48(3)	Subject to subsection (4), a dominant carrier must provide such unbundled network elements in a manner that allows requesting carriers to combine such elements in order to provide the telecommunications service concerned.	

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No	Act	Objective	
49(8)	A carrier who is dominant in respect of any services relating to the request for interconnection must allow such interconnection at any technically feasible point within its network and such interconnection must be accomplished without unreasonable interruption of service to existing users.	Dominant operators are required to interconnect	
50(1)	When it will promote competition or the other objects of this Act, a dominant carrier must lease any infrastructure to any other carrier or must allow the latter carrier to install telecommunications equipment on such infrastructure or to otherwise utilise such infrastructure: Provided that the dominant carrier may refuse to make such infrastructure available if – (a) such infrastructure is required by the dominant carrier for its own purposes; (b) in all the circumstances, the making available of such infrastructure will impose an unreasonable burden upon the dominant carrier; or (c) the making available of such infrastructure is likely to affect the service of the dominant carrier detrimentally.		
50(2)	A dominant carrier may request the Authority to exempt it from any duty imposed by this section for a period of six months.	Prescribes facilities leasing to promote	
50(3)	A request contemplated in subsection (2) may be granted by the Authority, if the dominant carrier can prove that if it complies with the duty concerned, it would not be able to perform any expansion which it plans to perform.	competition	
50(4)	If any expansion is not performed within six months from the date on which the Authority granted the exemption contemplated in subsection (2), then the dominant carrier will be obliged to comply with the request concerned.		
50(8)	A dominant carrier or the utility who leases the infrastructure must maintain that infrastructure and facilities installed in its premises or facilities, in return for the payment of compensation negotiated between the parties.		
51(2)	A licensee who is dominant in respect of some class of telecommunications services must offer such telecommunications services for resale at a discounted rate to any requesting reseller.	Prescribes reselling	
54(2)	A dominant licensee and any other licensee designated by the Authority must keep separate accounts for its telecommunications activities, to the extent that would be required if the telecommunications activities in question were carried out by legally independent companies, so as to identify all elements of costs and revenue, with the basis of their calculation and the detailed attribution methods used.	Prescribing accounting standards to objectively estimate costs for selected services such as interconnection and facility leasing as well as determining market dominance	
54(3)	Such accounting procedures must be followed and implemented by the dominant licensee and, where appropriate, other licensees designated by the Authority in terms of subsection (1).		
54(5)	The dominant licensee and other licensees required to adopt such accounting systems must provide financial information to the Authority promptly on request and at the level of detail required by the Authority.		