



**MAKEDONSKI TELEKOM AD – SKOPJE**

Address: Kej 13 Noemvri 6, 1000 Skopje, R. North Macedonia

ANNUAL REPORT  
on the operations of Makedonski Telekom AD - Skopje in 2020

This Annual Report on Operation refers to Makedonski Telekom AD - Skopje (hereinafter referred to as: "MKT").

In 2020, the coronavirus spread globally, and its negative impact gained momentum. Despite the Corona crisis MKT continues to show positive trend on the revenues side and its main KPI. The total revenues in 2020 compared to the 2019 revenue increase due to higher revenues in the ICT segment and in the fixed segment, coming from the continuing expansion of the customer base. The fixed revenues are higher, driven by the higher IPTV and Broadband revenue, partially offset by the lower fixed voice revenues. In the mobile segment, the positive trend in the postpaid revenues, mobile devices and accessories is netted by the Corona pandemic impact, especially on the prepaid ARPU and Roaming revenues. To sustain the positive performance recorded in 2020, MKT intends to further leverage the integrated Magenta offer, the high network quality and the market position as a premium provider.

At the end of 2020, MKT had 221 thousand voice access fixed lines making a 2.4% increase from the end of 2019. The number of total Broadband (BB) subscribers has increased to 191 thousand at the end of 2020, marking a 6.3 % increase from the end of 2019. The number of IPTV customers at the end of 2020 reached 142 thousand customers, marking a 4.5% increase from the end of 2019. The number of Fibre to the Home (FTTH) customers reached 78 thousand at the end of 2020, marking a 19% increase from the end of 2019.

MKT had 1,105 thousand mobile subscribers at the end of 2020, compared to 1,220 thousand at the end of 2019. The mobile market penetration in Republic of North Macedonia is 102. As a result of the market saturation, MKT especially focuses on retaining the customers in order to protect the market share.

MKT registered customer growth in all three focus segments – postpaid, BB internet and TV customers, keeping the largest TV operator position in North Macedonia (in terms of TV customer base), achieved as of Q2 2019.

MAGENTA 1 continued to be MKT's main product, offering both in the Consumer and in the Business segment. The simplification of the product propositions and the digital customer experience were the main guiding directions in 2020.

MKT showed to the society that companies using digital services are less vulnerable to the Corona crisis and managed to successfully implement the communication strategy of bringing digital optimism in people's daily lives during the doom and gloom of the pandemic. The customer support is shifting towards digital channels, especially via the Telekom app and "My Telekom" on the corporate web site.

Strategic focuses for MKT are transformation and digitalization with having Agile setup in its projects. Also, MKT continues to meet the increased demand for connectivity through its network and in order to keep sustainable business and major revenue streams in a very complex telecommunications environment, MKT has continued to massively expand in the fixed network and mobile communications in 2020.

Presented below are the available remuneration data for the BoD members of MKT, related to the applicable period of 2020\*.

- a) Data about the remunerations in MKT and in other companies if the respective member is also a member of the management bodies of other companies (salary, salary remunerations, remunerations for membership, bonus, insurances and other rights)

Name and surname (applicable period)	Company where the member is a member of the managing body	Salary	Salary remuneration	Remunerations for membership	Bonus	Insurances	Other rights
Zoran Kitanov	Makedonski TelekomAD – Skopje (Non-Executive member and President of the Board of Directors with active mandat from 15.12.2020)	0	0	MKD 145,000 (net)**	0	0	None
Sadula Duraki	Makedonski Telekom AD –Skopje (Non-Executive member and Vice President of the Board of Directors with active mandat from 15.12.2020)	0	0	MKD 47,000 (net)**	0	0	None
Andreas Maierhofer	Makedonski Telekom AD -Skopje (Non-Executive member of the Board of Directors)	0	0	0	0	0	None
	T-Mobile Poland (President of the Management Board of T-Mobile Polska)	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements
Karoly Schweininger	Makedonski Telekom AD -Skopje (Non-Executive member of the Board of Directors)	0	0	0	0	0	None
	E2 Zrt.	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements
Lubor Zatkó	Makedonski Telekom AD -Skopje (Non-Executive member of the Board of Directors)	0	0	0	0	0	None
Borce Siljanoski	Makedonski Telekom AD - Skopje (Non-Executive member of the Board of Directors)	0	0	0	0	0	None
Vladimir Ivanovski	Makedonski Telekom AD - Skopje (Non-Executive member of the Board of Directors)	0	0	0	0	0	None
	T-Systems Magyarország Zrt.	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements
Nina Angelovska	Makedonski Telekom AD - Skopje (Non-Executive member of the Board of Directors with active mandat from 15.12.2020)	0	0	MKD 33,000 (net)**	0	0	None

	Macedonian E-Commerce Association	0	0	0	0	0	None
Bardul Nasufi	Makedonski Telekom AD - Skopje (Non-Executive member of the Board of Directors with active mandat from 15.12.2020)	0	0	MKD 33,000 (net)**	0	0	None
Peter Veil	Makedonski Telekom AD - Skopje (Independent member of the Board of Directors)	0	0	0	0	0	None
Martin Renner	Makedonski Telekom AD - Skopje (Independent member of the Board of Directors)	0	0	0	0	0	None
Shkodrane Darlisha	Makedonski Telekom AD - Skopje (Independent member of the Board of Directors active mandat from 15.12.2020)	0	0	MKD 33,000 (net)**	0	0	None
Akjif Mediu	Makedonski Telekom AD - Skopje (Independent member of the Board of Directors active mandat from 15.12.2020)	0	0	MKD 33,000 (net)**	0	0	None
Nazim Bushi	Makedonski TelekomAD – Skopje (Non-Executive member and President of the Board of Directors with active mandat until 15.12.2020)	0	0	MKD 310,000 (monthly net)***	0	0	None
Sasho Veleski	Makedonski Telekom AD –Skopje (Non-Executive member and Vice President of the Board of directors with active mandat until 15.12.2020)	0	0	MKD 93,000 (monthly net)***	0	0	None
Sasho Simjanovski	Makedonski Telekom AD -Skopje (Non-Executive member of the Board of Directors with active mandat until 15.12.2020)	0	0	MKD 62,000 (monthly net)***	0	0	None
Miroslav Vujic	Makedonski Telekom AD - Skopje (Non-Executive member of the Board of Directors with active mandat until 15.12.2020)	0	0	MKD 62,000 (monthly net)***	0	0	None
Divna Jovkovska Eftimoska	Makedonski Telekom AD -Skopje (Independent member of the Board of Directors with active mandat until 15.12.2020)	0	0	MKD 62,000 (monthly net)***	0	0	None
Zamir Mehmed	Makedonski Telekom AD -Skopje (Independent member of the Board of Directors with active mandat until 15.12.2020)	0	0	MKD 62,000 (monthly net)***	0	0	None

b) Data about the employment if the member has established a labour relation with other employers (name of employer, activity, salary amount, salary remunerations, bonus, insurances and other rights).

Name and surname (applicable period)	Name of the employer	Activity of the employer	Salary amount	Salary remunerations	Bonus	Insurances	Other rights
Nikola Ljushev	None	None	None	None	None	None	None
Zoran Kitanov	KIEM dooel Skopje	Wholesale trade	MKD 30,000**	None	None	None	None
Sadula Duraki	None	None	None	None	None	None	None
Andreas Maierhofer	T-Mobile Poland	Telecommunications	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements
Karoly Schweininger	Magyar Telekom Nyrt.	Telecommunications	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements
Lubor Zatkó	Magyar Telekom Nyrt.	Telecommunications	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements
Borce Siljanoski	Deutsche Telekom AG	Telecommunications	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements
Vladimir Ivanovski	Magyar Telekom Nyrt.	Telecommunications	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements
Nina Angelovska	Macedonian E-Commerce Association	E-commerce	MKD 45,000**	None	MKD 12,300**	None	None
Bardul Nasufi	None	None	None	None	None	None	None
Peter Veil	Deutsche Telekom AG	Telecommunications	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements
Martin Renner	Deutsche Telekom AG	Telecommunications	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements	This may not be disclosed due to applicable requirements
Shkodrane Darlishta	Public Institution in the field of healthcare for the needs of the Public Health Institutions, University Clinics, Institute and Emergency	Health	MKD 39,000**	None	None	None	None

	Ward-Skopje						
Akjif Mediu	None	None	None	None	None	None	None
Nazim Bushi	Municipality of Chair period 01.01.2020 - 23.09.2020	Municipality of Chair	MKD 22,000 (monthly net) <sup>***</sup>	None	None	None	None
	Ministry of Internal Affairs period 23.09.2020 - 15.12.2020	Ministry of Internal Affairs	MKD 70,000 (monthly net) <sup>***</sup>				
Sasho Veleski	Mikron Tech doo Prilep	Production of industrial and universal small electronic motors	MKD 31,000 (monthly net) <sup>***</sup>	None	None	None	None
Sasho Simjanovski	TTK Bank AD Skopje	Financial services	57,000 (monthly net) <sup>***</sup>	None	None	None	None
Miroslav Vujic	Lawyer Miroslav Vujic	Lawyer	MKD 30,000 (monthly net) <sup>***</sup>	None	None	None	None
Divna Jovkovska Eftimoska	None	None	None	None	None	None	None
Zamir Mehmed	None	None	None	None	None	None	None

*\* Data for remuneration and membership in a management body in other companies and data for employment are presented in scope, layout and content as given by the respective member of the BoD and MKT has not made any verification of the accuracy and completeness of the data.*

*\*\*data presented are for period 15.12.2020 - 31.12.2020*

*\*\*\*data presented are for period 01.01.2020 - 15.12.2020*

In addition, the compensation of the key management of MKT, including taxation charges and contributions, is presented below:

In thousands of denars	2020
Short-term employee benefits (including taxation)	72,234
Contributions to the state pension system on short-term employee benefits	10,948
Other state contributions on short-term employee benefits	4,996
Long-term incentive programs	27,222
Other payments	2,097
Total	117,497

Further details on MKT's financial performance, the operating and accounting policies, as well as other relevant disclosures, including details for the investigation into certain consultancy contracts, are given in the MKT financial statements for the year ended 31 December 2020.

### **Transaction with an interested party**

Below are the details of the transactions concluded with an interested party:

At its regular meeting dated 10 June 2020, MKT's Board of Directors adopted a Resolution by which the conclusion of an Agreement for International IP Peering and Global Transit Services with Magyar Telekom has been approved as a transaction with an interested party in view of the fact that Magyar Telekom is the sole shareholder of Stonebridge Communications AD, a shareholder that owns 56.67% shares with voting rights in MKT.

This Agreement was concluded on 9 October 2020 in order to enable an international IP connection for all the broadband internet users of MKT.

The value of the Agreement is EUR 600,000 and its implementation and the respective payments by MKT towards Magyar Telekom shall be effectuated by 1 July 2022.

### **Statement on the application of the corporate governance code**

MKT is a company listed on the official market of the Macedonian Stock Exchange AD Skopje, in the sub-segment "mandatory listing" (hereinafter referred to as: "Macedonian Stock Exchange"). Pursuant to the Listing Rules of the Macedonian Stock Exchange, available on the website of the Macedonian Stock Exchange, as a company listed in the sub-segment "mandatory listing", MKT has no obligation to apply the principles comprised in the Corporate Governance Code of the Macedonian Stock Exchange dated June 2006, which is available on the website of the Macedonian Stock Exchange, (hereinafter referred to as "the Code dated 2006"), for the business year 2020.

For the purpose of adequate compliance with Article 384-a of the Law on Trade Companies, MKT hereby makes this statement whereby it confirms that it applies the principles of good corporate governance in accordance with the obligations defined in the Law on Trade Companies.

MKT has internal acts that are adopted by the Board of Directors (BoD) of MKT, which regulate the corporate governance, as well as the ethical and business behaviour of the management and the employees, as follows:

1. Manual for the MKT Corporate Compliance Program;
2. Financial Code of Ethics of MKT;
3. Directive of MKT on the introduction of fraud prevention principles;
4. Directive of MKT on the compliance with the anti-corruption principles;
5. Code of Conduct of MKT

These acts set high requirements and standards for the ethical and business behaviour of the managers and the employees of the MKT, including the members of the BoD.

These internal acts are published by MKT and are available to the Management and the employees, including the members of the BoD.

In its operation, MKT also guarantees the rights and the interests of the shareholders, it provides transparency of the ownership structure, division of responsibilities, regular and efficient control and audit, compliance with the laws, ethical standards and practices, independence and objectivity and other established principles.

### **Regulation and Pricing**

The Law on Electronic Communications - "LEC" of North Macedonia was enacted in March 2014 as primary legislation, followed by rulebooks adopted as secondary legislation in order to align with the EU Framework Directives 2009.

On 19 December 2014, amendments of the LEC were enacted. One of the most important changes is implemented in Article 75-a, which regulates the prices of international roaming. In accordance with this Article, the Agency for Electronic Communications ("the Agency") has the right, with a Decision, to determine the maximum prices for the services which are offered to the roaming users from countries with which the Republic of North Macedonia has concluded agreements on the reduction of the prices of roaming services in public mobile communications networks.

In March 2019, Article 75-a was changed in order to enable extension of the RLAH regulation. On 5 April 2019, six Western Balkan countries signed an agreement aimed at gradually abolishing the retail roaming surcharges by 1 July 2021. The Western Balkan regional roaming rules were inspired by the EU Roaming Regulation. In particular, the agreement includes a "roam like at home" principle: from 1 July 2021 the roaming services within the region

should be provided at domestic retail prices without surcharges for international roaming. The agreement applies only on the territories of the Western Balkan countries and has no impact on the users in the European Union. The Western Balkan countries comprise Albania, Bosnia and Herzegovina, Kosovo, North Macedonia, Montenegro and Serbia. The agreement replaces the previous agreement of 29 September 2014 signed by the four countries of Bosnia and Herzegovina, North Macedonia, Montenegro and Serbia.

In July 2019, the LEC was changed once again, and Article 29-a was added in order to enable the financing of the Operational-Technical Agency. With this regulation, the Agency is obliged to transfer part of its funds to finance the activity of the Operational -Technical Agency, as follows:

- 50% of the total revenue generated by the Agency for the preceding calendar year from the annual fees paid by the operators for market surveillance, set out in the Agency's annual performance report for the previous calendar year, adopted by the Commission of the Agency, and
- 10% of the total revenue generated by the Agency for the previous calendar year from the revenues from the annual fees for radio frequency utilization by the holders of authorizations for radiofrequency utilization, set out in the Agency's annual report for the previous calendar year, adopted by the Commission of the Agency.

The Agency is obliged to pay the amounts to the Operational-Technical Agency no later than April 15 of the current year.

New articles 71-a 71-b, 71-c, 71-d and 71-e were added requiring the establishment of a National Broadband Competence Office as an expert and advisory body to support the investment in Broadband Networks.

On 27 December 2016, MKT was once again designated as a Universal Service (US) provider for the following period of 5 years, for fixed telephony services and Internet of 2 Mbit/s, public payphones and equivalent access for disabled end-users for a five-year period starting as of 1 January 2016.

In April 2019, the Ministry of Information Society and Administration issued the National Broadband strategy which sets the following targets:

- By the end of 2023, at least one major city should be covered with 5G signal;
- By the end of 2025, the regional highways and state highways defined by the Agency should be covered by a continuous 5G signal;
- By the end of 2027, all urban areas will be covered by a continuous 5G signal;
- By the end of 2029, everyone will have access to 5G internet with a minimum internet speed 100 Mbps;
- By the end of 2029, at least 50% of the total number of subscribers agreements of households across the whole country should have internet access of at least 100 Mbps;
- By the end of 2029, all households will have affordable access to a network that provides download speeds of at least 100 Mbps with the possibility of upgrading to gigabit speed;
- By the end of 2029, all public institutions (schools, universities, research centres and other educational institutions, health institutions, ministries, courts, local governments and other public authorities and bodies,) should have symmetric access to the Internet of at least 1Gb/s.

### **Regulation of Fixed Line Business**

MKT is a significant market power (SMP) operator on the wholesale markets of fixed telephony networks and services, including the market of access to the networks for data transmission and leased lines. MKT, as an SMP operator, has the obligation to enable its subscribers to access publicly available telephone services of any interconnected operator with an officially signed interconnection contract.

In 2017, both relevant retail markets for fixed telephony: 1. Access to the public telephone network at a fixed location and 2. Publically available telephone services at a fixed location were deregulated. Based on it, MKT is not an SMP anymore and has no ex-ante regulations for the retail fixed services.

According to the bylaws, MKT has an obligation to publish reference offers for the wholesale products for

interconnection, Unbundling Local Loop (ULL), Local Bit-stream Access (BSA), Reference Access Offer for providing access to physical infrastructure and use of specific network facilities and wholesale terminating segments of leased lines.

The Rulebook on the emergency number E 112 was enacted on 27 October 2015 (Official Gazette No. 184/2015). Even though the obligations for the operators are defined in the rulebook, the date for starting the service is not set.

### **Regulated Wholesale Prices**

In May 2017, the Agency adopted a Decision for designation of MKT as an SMP operator on wholesale markets, local and central access on a fixed location, relevant markets, 3a and 3b. With the same market analysis, A1 Macedonia (formerly known as one.Vip) was designated as an SMP operator for the first time, with same regulatory obligations as MKT. A1 Macedonia is obliged to offer wholesale broadband services on DOCSIS technology.

In the middle of 2019, the NRA implemented ERT testing (margin squeeze methodology) to the NGA based broadband wholesale services supplied by the two dominant operators (MKT and A1 Macedonia). The developed ERT model will test the economic replicability of the retail bundles including broadband services with access speed higher than 30 Mb/s.

### **Regulation of the Mobile Business**

MKT has radiofrequency usage rights for the following radiofrequencies for public mobile communications systems:

- 2 x 12.5 MHz in the 900 MHz band, validity period: 8 September 2008 – 8 September 2028 (20 years)
- 2 x 10 MHz in the 1800 MHz band, validity period: 9 June 2009 – 9 June 2029 (20 years)
- 2 x 15 MHz 2100 MHz band, validity period: 17 December 2008 – 17 December 2028 (20 years)
- 2 x 10 MHz in the 800 MHz band, validity period: 1 December 2013 – 30 November 2033 (20 years)
- 2 x 15 MHz in the 1800 MHz band, validity period: 1 December 2013 – 30 November 2033 (20 years)

The competitor A1 Macedonia has frequency usage rights for the following radiofrequencies for public mobile communications systems:

- 2 x 12.5 MHz in the 900 MHz band
- 2 x 10 MHz in the 2100 MHz band
- 2 x 10 MHz in the 800 MHz band
- 2 x 15 MHz in the 1800 MHz band
- 2 x 10 MHz in the 800 MHz band
- 2 x 15 MHz in the 1800 MHz band

The duration of two licences positioned in the lower parts of the bands previously owned by A1 Macedonia was until 2017, 10 MHz from 900 MHz band and 10 MHz from 1800 MHz band and they expired on 23 March 2017. Based on a request from A1 for licence prolongation, the Agency adopted Resolution No. 0804-974 dated 2 November 2016 not to prolong these two licences. Their resolution was based on efficient and effective spectrum usage and necessity for realising radiofrequencies for entrance of third mobile operator on the market in order to foster competition. At the moment, these radiofrequencies are not allocated and are not available for sale to the existing operators. 2 x 15 MHz in the 2100 MHz band is prolonged until 2028.

The retail services provided by the mobile network operators in Republic of North Macedonia are currently not subject to ex-ante price regulation.

MKT is an SMP Operator on the wholesale market for voice call termination services in mobile communications networks, whereby several obligations are imposed: interconnection and access, non-discrimination in interconnection and access, accounting separation and price control and cost accounting.

In 2020 the Agency conducted new market analyses on the relevant market for mobile access and origination. The

regulatory remedies imposed by the Agency are as follows: joint dominance of A1 Macedonia and MKT, the same remedies for both operators, mobile access obligation for all MVNO hybrid types (including Reseller), a cost based price for Full MVNO and retail minus (-35%) for the Reseller, an obligation for access to MMS services and mobile data based on technology neutrality (including 4G access). In December 2020, the Agency approved the new decreased wholesale prices for mobile data for MVNO.

An auction procedure concluded in August 2013 awarded the whole 790 – 862 MHz band together with the unassigned spectrum in the 1740 – 1880 MHz band for Long Term Evolution (LTE) technology in a public tender. Each of the 3 Macedonian mobile operators acquired an LTE radiofrequency license of 2x10 MHz (in the 790 – 862 MHz band) and 2x15 MHz (in the 1740 – 1880 MHz band). Each license was acquired for a one-off fee of EUR 10.3 million (MKD 634,011 thousand). MKT will retain the license for 20 years, until 30 November 2033, with an extension option for up to 20 years in accordance with the LEC.

### **Audiovisual and Media Regulation**

As of 28 December 2018, the Law for Audio and Audiovisual Media Services has been amended in a way that new obligations are imposed to the operators that retransmit program services. By submitting the application for program services registration to the Agency for Audio and Audiovisual Media Services, the responsible person of the operator and the person in charge of the broadcaster submit a statement under full moral, material and criminal responsibility confirming that for the retransmission of program services they have regulated TV rights for a foreign broadcaster who plans to retake its entire programming service for the territory of the Republic of North Macedonia. In case of retransmission of any part of the program service of a broadcaster from another country for which the broadcaster does not have regulated rights for the territory of the Republic of North Macedonia, all the moral, material and criminal liability falls on the broadcaster and on the operator that retransmits its program service. The procedure for determining the liability for the violation or the violation committed, as well as the manner of registration of a legal representative of a broadcaster from another country shall be prescribed by the Council of the Agency for Audio and Audiovisual Media services with a by-law.

On 4 February 2019, additional amendments on the Law on Audio and Audiovisual Media Services were adopted: "Paragraph (3) and paragraph (4) of Article 35 amending Article 143 of the Law Amending and Supplementing the Law on Audio and Audiovisual Media Services ("Official Gazette of the Republic of North Macedonia" No. 248/2018) shall enter into force 60 days after the election of the Council of the Agency for Audio and Audiovisual Media Services, elected in accordance with the Law on Amending and Supplementing the Law on Audio and Audiovisual Media Services ("Official Gazette of the Republic of North Macedonia" No. 248/2018)".

All of the above shall enter into force 60 days after the election of the Council of the Agency for Audio and Audiovisual Media Services. Since the new members of the Council have not been elected so far, the above amendment is not implemented in practice, yet.

Nevertheless, the Government adopted four Decrees during the state of emergency, as follows:

The first Decree was published in the Official Gazette on 4 April 2020 and stipulated the manner of registration of the foreign program services as it had been stipulated before the last amendments of the Media Law in February, 2020.

The second Decree was published in the Official Gazette on 13 May 2020 and stipulated an obligation for the Agency to adopt all the related bylaws within 20 days.

The third Decree was published in the Official Gazette on 29 May 2020. This Decree declared the previous two Decrees null and void, and imposed an obligation to re-register all foreign program services (including the valid registrations) within 60 days of the relevant bylaw adopted by the Agency.

The fourth Decree was published in the Official Gazette on 22 June 2020 and imposed an obligation to re-register all foreign program services (including the valid registrations) within 150 days of the relevant bylaw adopted by the Agency.

Following the fourth Decree on the Media Law, the Agency amended the relevant bylaws.

Meanwhile, upon the Initiative before the Constitutional Court submitted by all relevant operators for revising the constitutional aspect of the relevant provisions, the Constitutional Court adopted a Decision to commence the procedure and to cease the implementation of all acts related to the relevant provisions until the final ruling.

## **Competition**

The competition in the telecommunications business is well-developed in all segments. Two main integrated players that offer full portfolio of fixed and mobile services shape the telecommunications market in North Macedonia: MKT and A1 (subsidiary of Telekom Austria Group).

A1 Macedonia, as an integrated operator, is offering various services - mobile and fixed voice, mobile and fixed broadband Internet and TV. The main focus is on mobile post-paid, bundled fix as well as bundled convergent offers. They introduced broadband internet for home use over 4G routers in 2017 and significantly increased their fixed BB base in 2018.

There are three MVNOs on the mobile market with very low market shares. The third one, Green mobile, entered the market in 2020.

The fixed market is fragmented, with more than 50 providers of TV and BB services, most of them with regional coverage.

Telekabel is the biggest cable provider among around 30 active cable operators, having strong presence in the regions where MKT has low market share. They entered the mobile business in January 2019, as an MVNO on MKT's network, offering post-paid services. By offering all fixed and mobile services, they became the third fully integrated player on the market.

The product portfolio of all operators is driven by bundle products. The cable operators are bundling their TV offer with Internet and fixed voice services. The fixed voice service of the cable operators is usually perceived as a value-added service. As the overall market is price sensitive, the price perception plays a major role in the customers' choice and thus the cable operators' offers are seen as more competitive than MKT's.

As at 31 December 2020, MKT has an estimated retail fixed voice market share of 62%, retail fixed broadband Internet market share of 46% and TV market share of 34% (source: internal best estimates for market development based on official Telekom Austria report Q4 2020 and AEC Q2 2020 report). In the mobile market, the market share of MKT was estimated to 49% (source: internal best estimates based on official Telekom Austria report Q4 2020 and AEC Q3 2020 short report).\*

\*All market shares are based on the new product logic of Telekom Austria, reporting WiFi routers in mobile. (starting from Q2 2019)

## **Marketing and Sales**

In 2020, the main challenge for MKT was to quickly adapt to the new working conditions and modified customer needs, according to the global pandemic situation. The importance of providing stable and reliable telecommunications service has strongly increased with the multiple lockdowns and urgent economy restructuring towards working from home. In such, unexpectedly changed situation, MKT managed to continue the growth in all of its focus segments (Postpaid base, Broadband base and Convergent customer base). The market environment has been further enriched with another MVNO convergent operator (Q4 2020).

## **Digital customer experience**

The imposed necessity to reduce direct physical customer contacts has further accelerated our focus in improving the digital customer experience and extending the portfolio of services that customer can perform without the need to visit MKT's physical contact points.

As an early response to the lockdowns, in order to meet the customers' increased internet demand, and ease the forced staying at homes, MKT introduced improved internet allowances in the all fixed internet packages, and provided free mobile monthly packages to the whole mobile customer base, as well as free usage of some TV packages.

Option #Stay at home was introduced for the regular postpaid and FMC portfolio, allowing further benefits for the customers who opted for e-bill.

In May 2020, new mobile postpaid portfolio was introduced with regular benefits for the customers who decided to use e-bill.

The TV service was extended with the introduction of Android TV, which allowed watching MaxTV via any internet connection (including mobile internet).

As of the end of 2020, MKT maintained its leadership in TV service, being the single largest TV operator (in terms of TV customer base) in North Macedonia.

In the summer of 2020, the Telekom app, which is our main digital customer service channel, was further improved to support customer contract renewals, as well as tariff changes without visiting MKT shops. By the end of 2020, the base of app users has reached nearly half of the residential smartphone user base. In March 2020, the Telekom app became available to use for the Business customers as well.

Magenta 1, our flagship proposition in residential segment – was further redesigned to allow flexibility in customer choice in terms of the benefits they can utilize, conveniently managed via the Telekom app.

By the end of 2020, powered by the strong growth of internet users, MKT marked customer growth in all three focus segments – postpaid, internet and TV and Magenta 1 residential customers.

In the Business Segment, Telekom turned the Covid 19 crisis into an accelerator of its growth story - Digital Transformation of Society and Businesses.

In these difficult times, MKT B2B positioned itself as a real partner to the society and businesses, helping them to get back in control and run the business in times of Corona. Its No. 1 priority was to come out as a winner of this situation with customers, and not without them.

As a full support in bridging the crisis, MKT B2B doubled the Internet packages for all Fixed and Mobile Customers. It offered 90 days free Collaboration Tools like Webex and provided free Green Numbers to Health Institutions.

Option #Work from home was introduced in May 2020, enabling companies to digitize their processes and way of working.

Magenta 1 Business remained MKT's key proposition in the B2B segment, upgraded with new, cloud services, providing more benefits for more value.

Aiming to be a leading force in Digitalization of Society, MKT introduced qualified trusted services (Qualified Digital certificates for electronic signatures and electronic corporate seal).

In 2020, MKT B2B, by promoting digital channels and self-service tools, managed to create a new upgraded Digital Customer Journey. The B2B Telekom App was introduced in March and reached 28% App penetration by the end of the year. Switching customers from traditional to new, digital channels reduced the calls to the B2B Contact Center by 21% in comparison with the previous year, significantly increasing MKT customers' satisfaction.

### **Digital optimism and new media**

The unexpected challenges that 2020 brought called for innovative marketing communications solutions. This meant two actions on our side: to reinforce our position of a supportive and connective force in people's lives,

and to deliver this message where people will most likely see it.

We managed to successfully implement the Group communication strategy of bringing digital optimism in people's daily lives during the doom and gloom of the pandemic. Following this relevant line of communication resonated so well with people that the Xmas commercial saw an unprecedented rise in brand fit.

Media-wise, we extended our presence on digital and social media, to help people reach our services when they needed them much faster.

Business communication also saw dramatic increase in digital presence, with attempts and conversion, pushing the limits for both communication and product.

MKT B2B marketing communication activities were focused on showing people the opportunities and take away their fear of digitalization. With Telekom Webinars, MKT B2B showed to the society that companies using digital services are less vulnerable to the Corona crisis.

### **Best quality service**

In order to provide best service quality, MKT continuously invests in the network development, widening the FTTH and VDSL coverage and providing services via 4G cubes in specific regions, thus reaching to 100% Internet availability, country wide. In 2020, the FTTH coverage reached more than 220K access points in the country.

In mobile communication, we set ourselves apart from our competitors with the outstanding quality of our network. We have regularly conducted nationally representative market researches, via independent agencies, to check customer experience and perception about telecommunication network quality, which confirms our leading position in both mobile and fixed network, as being perceived by the most important factor – the end customers.

### **Excel in customer experience**

In 2020, according to our regular customer satisfaction surveys, MKT managed to remain number one operator in customer satisfaction in mobile, fixed and convergent services.

Providing simple and easy customer journey in an omnichannel approach remained imperative for 2020 as well. To achieve this, the different customer segments were addressed via the most appropriate sales channels. The Point of Sales (PoS) (own and partner) are continuously modernised following the latest trends to provide best customer experience, where customer can explore products and services offered. Push sales channels like Door to Door (D2D) and telesales remained in focus with significant contribution to the overall sales results.

The customer support to our customers is shifting towards digital channels, especially via the Telekom app and "My Telekom" on the corporate web site. Our application is a 24x7 available support tool, as new functionalities are added. Customers are also able to conduct self-diagnostics and troubleshooting for their services.

Live chat is available within the web site, and from last year also Live messenger is available within the Telekom app for those customers who prefer written communication. By the end of 2020, the online communication (via chat, e-mails) has increased to 15%.

### **Research and Development**

MKT continues with its determination and its work to be innovation and technology leader on the market. Among the main focuses, as a continuation to the previous years, are the projects in the area of the Smart City. Year 2020 was a breakthrough in the area of Smart City. MKT won 3 Smart Light reconstruction projects for smaller municipalities, and at the end of the year MKT signed the contract for the capital of North Macedonia, Skopje, with smart lighting, parking, air quality, citizen engagement, water metering and mayors dashboard. MKT has high probability of getting the contract for several other municipalities at the start of 2021, since the procedures are already open. From society digitalization perspective, support activities for preparation of e-health and e-education

strategy are ongoing.

Other important segment that was covered in 2020 is SW development. The MNAV Rostering system which was developed by internal and external resources for Macedonian Navigation provides active roster planning for all flight controllers at the Skopje Airport. In the security and cybersecurity area, MKT has successfully tested Cisco Umbrella, and we are in the phase of creating a product.

Moreover, collaborating with our partners, MKT established a (web-based) integrated communication and data management system for documents and workflows – DX Office. Using DX Office, customers will digitize and automate the existing work processes and documents in order to have a digital office where they will gain speed, control and easier operation. The process of cloudification is finished successfully as the system is hosted on our own virtual private servers.

Moreover, we investigated the potential market and we made a cost analysis for implementation of Narrowband for Internet of Things (NB-IoT). Furthermore, the utilization of the potential coming out from the EU funded projects in smart Digitalization, IoT solutions, e-government, etc., was also under close loop.

In addition to the business development activities given above, in 2020 we put the focus on the development of the projects and products for digitalization and smart working for the business segment, which we believe are growing market potentials in the forthcoming years, expected to be driven by the advantages of the efficiency of ICT in daily workflows systems and networks, as well as by the transparency and accountability of such solutions.

Under the motto - INNOVATION SYNERGIES – WIN WITH PARTNER, we keep further on our strategic technology partnerships-Cisco Gold, EMC Cloud solution provider, as well as Microsoft Partnership. We also started the process for potential cooperation with SAP. We started offering SAP Business One exclusively on our market, completely localized in Macedonian language, covering all business processes in an organization. These partnerships are confirmations of MKT's competences in the areas of enterprise networks, cloud, collaborations, network securities, and Data Center technologies. Such competences are deemed to be crucial assets on which we can leverage further in our ICT business development activities.

Driven by the impact of COVID 19, and the increased need for remote working while maintaining the efficiency, MKT exclusively started offering the Time Tracking service on our market. It is a useful tool for modernizing the work environment and increasing the efficiency by smooth organization of the time and work tasks of the employees.

Having in mind the fact that the company's network is one of the essential resources enabling smooth business operations, MKT started offering the new service intended for efficient management of customers corporate network and IT infrastructure - mNMS (Managed Network Management System). The service is based on a software solution hosted in our own cloud and provides broad set of tools for network management and monitoring.

The competitive pressure in conjunction with the saturated Telco market, COVID 19 challenges, complexity of business environment with multiple and more sophisticated customer segments, multiple vendors and complex service offerings, fast changes in the technology with new technology paradigm targeting for one universal IP network and cloud-based service delivery platform, as well as the changes in the regulations, are only part of the challenges that MKT will face in the next few years.

In order to keep the sustainable business and major revenue streams in a very complex telecommunications environment, as well as to proactively influence the market trends with new business opportunities, MKT is aiming to keep its technology leadership position and to ensure growth through service improvement and innovation by continuous development of its infrastructure.

The development of infrastructure and investment in technology should encompass the following objectives/trends: broadband performance, integrated service delivery platforms, efficiency and quality leadership, self-service enablers, cloud concept and "virtual" infrastructure, cost efficiency, flexibility and responsiveness – reduced time-to-market, as well as competence development.

Despite the Corona crisis, in order to keep sustainable business and major revenue streams in a very complex

telecommunications environment, MKT has continued to massively expand in the fixed network and mobile communications during 2020.

MKT's fixed network has proven to be a strong backbone. Home office and homeschooling have led to an increase in the usage of telephony and data. The network was able to handle this volume at all times without any problems. Data throughput in the fixed network increased by an average 18 to 25 percent and mobile voice traffic increased by approx. 6 percent.

In terms of the fixed network expansion, the focus was on fiber optics. The fast connection for households and businesses and the rollout strategy of recent years have paid off in terms of working and learning from home. At the end of 2020, there are more than 221,000 FTTH accesses passed which means that around 31.65% of flats already have the option of booking a fiber-optic connection. Regarding the VDSL rollout, there are more than 204,000 VDSL CO accesses passed and 23,660 VDSL FTTC (Fiber to the Cabinet) accesses passed in the fixed network. In the 2<sup>nd</sup> half of 2020, a Cu2F (Copper to Fiber) project was initiated in order to speed up the retirement of copper technology and optimize the costs. Significant attention to this project will be paid during 2021 as well. Deployment of Hybrid Access and LTE box solutions were used where fixed BB is unavailable or is with low quality, thus improving the user experience through higher QoS (Quality of service). At the end of 2020, the number of LTE box users are 4,143 and there are more than 4,550 hybrid users.

The LTE network also continued to grow in 2020 and now covers 99.9% population outdoor. More than 99% of the total sites provided LTE services, 66% of all BTSs are connected via optic. Data volume via 4G is also increasing month by month during the Corona crisis. In order to provide more efficient spectrum usage and optimization of complex 4RATs (2G/3G/4G/5G) mobile network, the activities for retirement of 3G Technology were boosted in the 2<sup>nd</sup> half of 2020. The whole project is planned to be completed by the end of 2022 which will result in the implementation of a new NT production model based on virtualized, cloudified and disaggregated RAN. During 2020, much of the development activities were devoted to further the RAN and MW modernization for the introduction of the 5G technology which start is planned for 2021.

In the core domain, the emphasis was placed on the voice network modernization. Several projects were initiated and successfully completed. For example: migration of IMS MRFP (Media Resource Function Processor) to MRS (Media Resource System) nodes, replacement of the old IMS Extreme switches, deployment of new ENM node and decommissioning of existing OSS/ENIQ, upgrade of the Oracle Performance Management (OCSDM) tool, etc. It is also important to mention that in the Q3 2020, the project for virtualization of the native IMS nodes started in parallel with the project for migration of the residential users from fix SBC (Session Border Controller) nodes toward VoLTE SBC nodes. Both of them are planned to be completed by the end of 2021. After the VoLTE service implementation in 2019, MKT continued to develop this service in 2020. More than 150 k VoLTE users were provisioned by the end of 2020. MKT provided the first commercial VoLTE roaming with Telekom Germany in its network starting from December 2020. With this service (Voice over LTE), the calls are set up over the 4G (LTE) network that until that time had not been used for mobile calls – the smartphones were automatically switched to the 3G network. In everyday life it means call set up with the speed of lighting, better sound quality, wider range of sounds and reduced background noise.

The growth of the BB access and the continuous traffic increase were supported with further development of the IP Core and transport network as a cornerstone of all services. In ePC domain, HW and SW upgrade on SGSN/MMEs (Serving GPRS Support Node/Mobility Management) and PGWs (Packet Gateways) was performed in order to cope with the increased traffic demand. No major issues during the Corona crisis period were noticed. Activities for NG Aggregation Network modernization were being executed as per plan for 2020. The modernization of the SPNI (Service Platform Network Infrastructure) segment of the network started during 2019, continuing during 2020. The scope of the SPNI project is the integration of the main DCs (Data Centers) into one geographically distributed network layer; providing network connectivity to all IT and NT services, as well as laying down the foundation for Cloudification of the NT and IT production are also started. The project finalization is planned in Q2 2021.

The video and high-speed data services are expected to be the main driver and main potential for further market differentiation, as well as main opportunity for business growth. In order to improve the quality of the IPTV service

and to maintain the position of #1 TV provider on the Macedonian market, upgrade of IPTV video/audio subsystem to Backend 3.0 and Client 2.6 was performed during 2020 MKT. In parallel, a TV Strategy document was prepared based on which further development of IPTV and OTT (Over – The – Top Media system) platforms, as well as Headend, will be done in the next period. Introduction of NPVR (Network personal video recorder), Recommendation engine and UI 2.0 on OTT clients are planned for the next short-term period of two years. The Project for replacement of the existing messaging services like Voice Mail, SMS, MMS, Call Completion, SMSGW (Short Message Service Gateway) and USSD (Unstructured Supplementary Service Data) started in 2020 and it is planned to be completed by the end of 2021.

### **Information technology**

During 2020, MKT executed significant IT Transformation

- The main objective of the IT transformation was the execution of a sustainable and feasible concept for the IT Operating Model, that enables the implementation of the DT and MKT digital strategy, which is the financially most efficient option within the budget
- The IT transformation model is a combination of outsourcing legacy systems (Billing, CRM and Infrastructure domains) and insourcing new employees that will cover the missing skillset
- Inhouse IT is transformed into Agile setup
- Dedicated cross-functional team is built, unifying IT, Business and Operation for improved and flexible delivery.
- MKT focused on Digitalization and building EIRA
- Transformation allows MKT to become competitive employer, leveraging from employee performance
- OneERP, as a strategic transformation program for business and IT, is successfully implemented. MKT has got a unified platform, standardized processes, transparency, agility and digitization. The 20.C rollout in MKT is done with a “big bang” approach - the full scope is introduced in one release. The scope includes Finance, HR, Procurement, PSL Int, Plant Maintenance, Real Estate Management and SCM-T.

The first projects in Agile setup were started and delivered. Further activities are ongoing and will continue in a stronger manner, which will fulfill the plan and enable the realization of the strategic focuses.

Nikola Ljushev

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Chief Executive Officer  
Makedonski Telekom AD – Skopje

Proofreading by Lingva Ekspert