

NATIONAL COMMISSION
FOR THE STATE REGULATION
OF ELECTRONIC COMMUNICATIONS,
RADIO FREQUENCY SPECTRUM AND
THE PROVISION OF POSTAL SERVICES

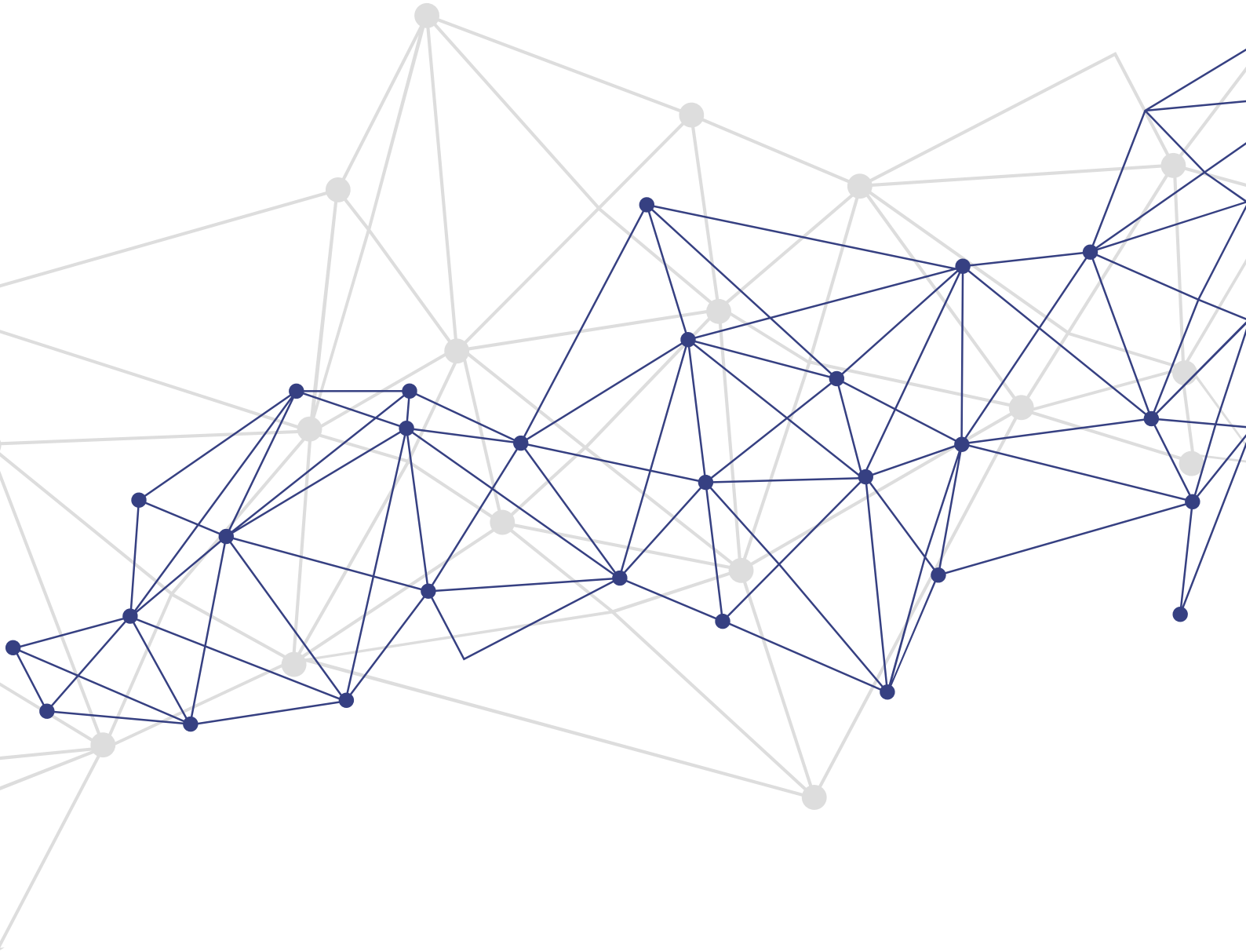


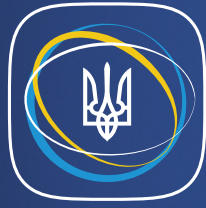
REPORT

on the activities
of National Commission

for the State Regulation of Electronic
Communications, Radio Frequency Spectrum
and the Provision of Postal Services

in 2023





NATIONAL COMMISSION
FOR THE STATE REGULATION
OF ELECTRONIC COMMUNICATIONS,
RADIO FREQUENCY SPECTRUM AND
THE PROVISION OF POSTAL SERVICES

MISSION

We work to ensure that everyone in Ukraine is able to use the high-quality, safe and available electronic communication and postal services.

VISION

Implement the existing potential of Ukraine and turn it into a powerful innovative electronic and communication hub.



COMPOSITION OF THE COMMISSION



**Oleksandr
ZHYVOTOVSKYI**
CHAIRMAN OF NCEC



**Liliia
MALON**

MEMBER OF NCEC



**Viktoriia
TROSHCHENKO**

MEMBER OF NCEC



**Oleksandr
BISIUK**

MEMBER OF NCEC



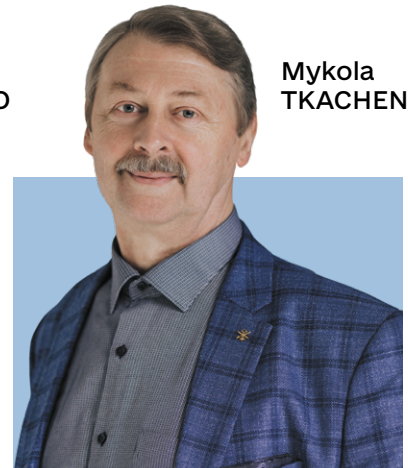
**Ihor
KOLESNYK**

MEMBER OF NCEC



**Andrii
SEMENCHENKO**

MEMBER OF NCEC



**Mykola
TKACHENKO**

MEMBER OF NCEC



Dear partners, colleagues, friends!

Trials of the second year of a full-scale Russia's war against Ukraine have made us stronger and more resilient. Each of us has adapted to the daily challenges and conditions of military life: from changing the way of life to a complete revision of values and priorities. The same transformation has taken place in economy and all social spheres of the state. Electronic communications and postal services domains transformed as well, strengthening the industry, each of its participant and becoming the drive of development, mutually beneficial partnerships and profit growth. We are proud of the positive financial and economic indicators within the domain of electronic communications and postal services markets.

In 2023 total revenues from the provision of communication services reached 130.5 billion UAH, of which revenue from provision of electronic communication services was 97.3 billion UAH (that is almost 17% higher in comparison with 2022), revenues from the provision of postal and courier services – 33.2 billion UAH.

In the conditions of full-scale armed aggression of the Russian Federation against Ukraine network providers continue to develop the sphere of electronic communications deploying the new networks and restoring the damaged ones. Capital investments in the field of electronic communications in 2023 reached 19 billion UAH, that is 50% higher compared to 2022.

Broadband internet access traditionally acts as a key element of modern society's and economy's development, contributing to innovations, increasing competitiveness and improving the population's quality of life. Fixed internet access demonstrated the highest increase in 2023. Amount of revenue received from the provision of services for access to a fixed internet networks in 2023 reached 21 billion UAH, that is 33% higher than in 2022. The number of fixed internet lines increased noticeably, especially in rural areas – by 25%. The share of fiber optic cable (xPON) usage has also increased, though it was caused by the problems with power supply in Ukraine, and currently is about 40% – this is a powerful potential for the introduction of gigabit connection that corresponds to the European standard's strategies for building a gigabit environment.

The steady development of the sector is also indicated by the growing competition in almost all services and territories of all regions – we finished the 2023 with over 4,000 electronic communication networks and services providers and that is 1,800 entities more than in 2022.

2023 was the year of increase in electrical autonomy of mobile and fixed internet networks access, that has essentially improved the stability of its functioning in comparison with 2022. Providers are willing to provide vital services to citizens even despite accidents, damage, destructions of networks, lack of electricity supply etc.



In 2023 a large attention was traditionally paid to and a number of positive results have been achieved in the sphere of European integration and international cooperation development, in particular: provision of available international roaming services for Ukrainians staying at territory of the EU, and development of practical steps for joining Ukraine to the single "Roam-like-at-home" EU zone (Roam-like-at-home/RLAH), attracting to Ukraine international support and measures aimed at condemning the actions of the Russian Federation at the level of international sectoral organizations, deepening cooperation with European organizations and platforms, as well as expanding bilateral cooperation with regulatory bodies of foreign countries.

In cooperation with all stakeholders we have continued creating the necessary regulatory documents for coherent and understandable work of the electronic communication industry in the new legislation field and in the context of the accelerated adaptation to the EU norms and Ukraine's integration into the EU single digital market.

The Report offered for your attention gives the detailed information on all areas of NCEC activities and the results of the work of electronic communications, radio frequency spectrum and provision of postal services spheres in 2023. All given figures are the result of the reports' analysis received from approximately 3,600 service providers.

I would like to thank every member of our team, colleagues, foreign partners and all stakeholders for the contribution to the development of the communication field. I wish to all of us confidence and inspiration for further efforts and effective work!

Oleksandr Zhyvotovskiy
Chairman OF NCEC and the NCEC Team

TABLE OF CONTENTS

LIST OF ABBREVIATIONS	7
MAIN ACHIEVEMENTS AND KEY FIGURES IN 2023	8
FUNCTIONING AND DEVELOPMENT OF THE ELECTRONIC COMMUNICATIONS SECTOR IN THE CONTEXT OF THE ONGOING ARMED AGGRESSION OF THE RUSSIAN FEDERATION AGAINST UKRAINE	10
SECTION 1. STATUS OF ELECTRONIC COMMUNICATIONS AND PROVISION OF POSTAL SERVICES MARKETS DEVELOPMENT	13
General information on the state and trends in development of electronic communications and provision of postal services markets	15
Status of mobile communications services market development	19
Status of the fixed internet access services market development	25
Status the voice services fixed communication market development	30
Electronic communications networks infrastructure access services	32
Status of the postal services market development	33
SECTION 2. USAGE OF RADIO FREQUENCY SPECTRUM AND ELECTRONIC COMMUNICATIONS RESOURCES	38
Allocation and usage of radio frequency spectrum	38
Implementation of new radio technologies	40
Usage of radio equipment	41
Allocation and usage of numbering resources	41
SECTION 3. STATE SUPERVISION (CONTROL) IN THE SPHERE OF ELECTRONIC COMMUNICATIONS, RADIO FREQUENCY SPECTRUM AND PROVISION OF POSTAL SERVICES ..	44
Exercise of state supervision (control) in the field of electronic communications, radio frequency spectrum and postal services	44
Ensuring the quality of electronic communication services	49
SECTION 4. REGULATORY AND LEGAL FRAMEWORK OF NCEC	54
SECTION 5. EUROPEAN INTEGRATION AND INTERNATIONAL COOPERATION	61
SECTION 6. PROTECTION OF CONSUMER RIGHTS	71
SECTION 7. TRANSPARENCY OF THE NCEC ACTIVITIES AND THE STATUS OF CAPACITY TO PERFORM TASKS AND EXECUTE POWERS	75
Transparency and publicity of NCEC activities	75
Access to public information and open data	79
Provision of NCEC with human and information technology resources	80
Level of NCEC digitalization	82
Results of the NCEC annual execution of the budget (audit) in 2023	83
NCEC PRIORITIES FOR 2024	84



LIST OF ABBREVIATIONS

SSSCIP	State Service of Special Communications and Information Protection of Ukraine
RD	Radiating device
UPU	Universal Postal Union
ERP	Electronic regulatory platform
EC	European Commission
EU	European Union
Law on EC	Law of Ukraine "On Electronic Communications"
Law on protection of subject reporting interests	Law of Ukraine dated 03.03.2022 No. 2115-IX "On Protection of interests of the reporting subjects and other documents during the period of martial law or state of war"
Law on NCEC	Law of Ukraine "On the National Commission for state regulation of electronic communications, radio frequency spectrum and the provision of postal services"
Law on Postal Service	Law of Ukraine "On Postal Service"
CMU	Cabinet of Ministers of Ukraine
Ministry of Justice	Ministry of Justice of Ukraine
Ministry of Infrastructure	Ministry of Communities, Territories and Infrastructure Development of Ukraine
Digital Ministry	Ministry of Digital Transformation of Ukraine
IRE	Illegally functioning radio equipment
NCEC, Regulator, Commission	National Commission for state regulation of electronic communications, radio frequency spectrum and the provision of postal services
NCM	National center for operational technical management of electronic communication networks
Networks/services provider	Provider of electronic communication networks and/or services
DPS2UA Project	EU technical assistance project "Digital Policy Support to Ukraine"
Register of postal services	Unified state register of postal service operators
NSDC	National Security and Defense Council of Ukraine
RE	Radio equipment
SSU	Security service of Ukraine
Association Agreement	Association Agreement between the European Union and its Member States on nuclear energy, of the one part, and Ukraine, of the other part
UCRF	State enterprise "Ukrainian state center of radio frequencies"
Decree on the introduction of martial law in Ukraine	Decree of the President of Ukraine "On the introduction of martial law in Ukraine" of February 24, 2022, No. 64/2022, approved by Law of Ukraine "On Approval of the Presidential Decree of Ukraine "On the introduction of martial law in Ukraine" of February 24, 2022 No. 2102-IX
BEREC	Body of European regulators for electronic communications
ERGP	European Regulators Group for Postal Services

MAIN ACHIEVEMENTS AND KEY FACTS IN 2023

RESILIENCE AND SUSTAINABILITY

NCEC carried out targeted measures in order to ensure stability of electronic communication infrastructure under martial law and prepare for the possible crisis situations, in particular:

- quick recovery capability of electronic communication networks;
- carrying out the optimal redistribution of available resources in such networks;
- solving a complex of organizational, technical and economic cooperation on the national and international levels.

Operators' provision:
PJSC "Kyivstar",
PJSC "VF Ukraine",
LLC "Lifecell",
JSC "Ukrtelecom",
PJSC "DATAGRUP"

Number of generators increased up to 6,049, rechargeable batteries – up to 385,551, that is 2,549 and 129,584 more accordingly in comparison with 2022.

Implementation of measures regarding elimination of cyber attacks consequences on the network PJSC "Kyivstar" (December 2023), in particular, working out possible radio frequency spectrum redistribution options in case of occurrence unforeseen circumstances.

HARMONISING LEGISLATION WITH EU LEGAL ACTS, PRACTICAL EXECUTION OF THE LAW ON EC AND THE LAW ON NCEC

- 29 by-laws were developed and adopted
- the Law on Post was put into effect on 23.05.2023
- the effective operator model was introduced (LRIC)
- an emergency service system "112" has been implemented

JOINING OF UKRAINE TO THE EU SINGLE ROAMING ZONE – "ROAM LIKE AT HOME"

- the project of the Law of Ukraine "On introducing amendments to certain legislative acts of Ukraine on the implementation of European legislative provisions regarding roaming issues" has been registered on 17.11.2023 No. 10265 (approved on first reading and adopted on 23.02.2024)

MOBILE COMMUNICATIONS SERVICES QUALITY MONITORING

Drive tests were carried out on the territory of **1 188** settlements with a population ranging from **2** to **10** thousand people (including **2** detours) and **26** international highways twice within a year. Total length of drive test routes reached **156 402** km.

More than **130 thousand** test sessions for individual quality indicators of mobile services connection were performed in residential area and automobile roads.

PARTICIPATION IN INTERNATIONAL SECTORAL ORGANIZATIONS

- updated Resolution 1408 "Assistance and support to Ukraine for rebuilding their telecommunication sector" shifts focus to providing assistance and support to Ukraine in recovery of the electronic sector communications, infrastructure, in particular to an acceptable level, all that needs international community assistance on bilateral, regional levels or through international organizations.
- participation in CPG-23 (20.11-15.12, 2023), approved spectrum allocation for international mobile communication (IMT) – will contribute to the expansion of broadband connection and development of IMT mobile services – 4G, 5G and in the future – 6G, a petition regarding a full-scale invasion of the Russian Federation on the territory of Ukraine and its consequences has been made.

BILATERAL COOPERATION

Memorandums of understanding have been signed with:

- Federal Communications Commission (FCC), USA
- ANACOM National regulatory authority for electronic communications and postal sector in Portuguese Republic.

Thematic seminars with colleagues from FCC, ANACOM and Ofcom (Authority for the telecommunications and postal industries of the UK), deepening the cooperation, support of Ukraine in the field electronic communications and experience exchange in key areas for Regulators.

Conducted

73 meetings of Commission

Accepted

506 decisions and resolutions

Registered in Ministry of Justice

34 by-laws

Reviewed by NCEC

185 by-laws

Conducted

44 unscheduled checks

Performed

260 joined state oversights

Removed

214 IRE

Received and reviewed

6 397 appeals from citizens

Conducted conferences

- "Regulator 3.0. Ukraine in touch"
- "Ukraine in the world and European postal space: development condition and prospects"



COMMUNICATION INDUSTRY

130,5 Inflation 5,1%
billion UAH

CAPITAL INVESTMENTS

18,9 +50%
billion UAH

Fixed internet

21,2 +33,3%
billion UAH

Fixed voice communication

3,3 -5,7%
billion UAH

Postal services

33,2 +33,3%
billion UAHAmount of lines **8,1 million**Amount of lines **1,4 million**Number of postal shipments **544,6 million**Fiber optic broadband access **88,1 %**ARPU **193,5 UAH**xPON **41,3 %**ARPU **219 грн**Growth **> 1 thousand**

Mobile services

+9,8%**61,7**
billion UAHSimcards **50,3 million**4G users **29,8 million**ARPU **102,1 UAH**approximately **1 million**
National roaming **of users/daily**approximately **4 million**
International roaming **users/daily**

FUNCTIONING AND SECTOR DEVELOPMENT OF ELECTRONIC COMMUNICATIONS IN CONDITIONS OF CONTINUING ARMED AGGRESSION OF THE RUSSIAN FEDERATION AGAINST UKRAINE

Communication has become an integral part of everyday life of Ukrainians, especially due to the full-scale armed aggression of the Russian Federation against Ukraine. Supporting the access to the information space of Ukraine and maintaining contact with relatives became an urgent need. With the beginning of the full-scale armed invasion of the Russian Federation on the territory of Ukraine (24.02.2022), the provision of communication for citizens remains the top priority for NCEC in 2023.

For this purpose NCEC carried out measures aimed at ensuring reliability and sustainability of electronic communications infrastructure under martial law and preparation for possible crisis situations, in particular:

- prompt restoration of working capacity for electronic communications networks;
- carrying out optimal redistribution of available resources within such networks;
- solving a complex of organizational, technical and economic issues regarding the interaction on the national and international levels.

Implementation of these important both for the state and its citizens tasks was carried out on a continuous basis and in close cooperation with industry leading associations "Telas", Telekomchamber and UIA (Ukrainian Internet Association), as well as in operational interaction with the NCM, experts and management of national electronic communications operators, in particular: JSC "Ukrtelecom", PJSC "Kyivstar", PJSC "VF Ukraine", LLC "lifecell", PJSC "DATAGRUP", LLC "Atracom", LLC "EUROTRANSTELECOM".

To ensure the security of the state information resources and implementation measures to counter the threats to electronic communications networks the following information regarding NCM orders NCEC delivered to the networks/services providers:

- setting special routing features of voice electronic communications within the numbering zones of the hostile regions;
- definition of content and procedure of delivery for the short text messages in order to inform the population in the hostile territories and de-occupied territories of Ukraine;
- meeting the requirements of the National Security Council, the National Bank of Ukraine, the Security Service of Ukraine and the National Council on Television and Radiobroadcasts about blocking access of the Ukrainian segment Internet subscribers to information resources/services, domains/subdomains/subdivisions of the aggressor state and for the purpose to countermeasure fraud in banking and finance spheres, stop the spreading of prohibited audiovisual media services on the territory of Ukraine, etc.

In order to ensure the sustainability and operability of electronic communications networks under the influence of destabilizing factors of a military nature, during short and long-term power outages that can lead to limited functioning or electronic communication networks overload, and to implement the decision of the National Security Council dated 26.11.2022 "On providing electronic communication services in conditions of martial law", put into effect by the Decree of the President of Ukraine dated November 26, 2022 No. 802/2022, relevant orders of the Prime Minister of Ukraine, decisions of NCEC and Decrees of NCM a set of measures was carried out allowing to significantly increase the number of reserve power sources necessary for ensuring the autonomous work of electronic communications technicians means at least during three days in the absence of external power supply.

Thus, provision of operators during 2023: PJSC "Kyivstar", PJSC "VF Ukraine", LLC "lifecell", JSC "Ukrtelecom", PJSC "DATAGRUP" with generators increased up to **6,049** units, rechargeable batteries – up to **385,551** units, that is **2,549** units and **129,584** units more in comparison with 2022, respectively. Also, as a results of the above given operators' cooperation with local authorities, enterprises, institutions, organizations, business centers, shopping malls, entertainment centers, etc. agreements regarding provision of **2,001** addresses/locations with autonomous power supply (generators) at the expense of third parties, on the territory of which network equipment is located by the end of 2023 (that is **1,253** units more than beginning of 2023) were reached. In addition, network operators with the help of socially active participants from private sector of the economy, created networks of public Wi-Fi zones in many cities of Ukraine, which allowed citizens to have free access to the Internet.





As a part of state supervision (control) functions by NCEC authorized officials, during 2023, inspections of mobile communication operators were carried out regarding the provision level of autonomous power sources as well as fuel and lubricant materials, necessary for sustainably functioning electronic communication networks, on territories of Vinnytskyi, Dnipropetrovskiyi, Zhytomyrskiyi, Ivano-Frankivskiyi, Kyivskiyi, Lvivskiyi, Mykolaivskiyi, Odeskyyi, Poltavskiyi, Rivnenskiy, Sumskiyi, Kharkivskiyi, Khmelnytskyi and Chernihivskiyi regions. During these events violations in work of three mobile communication operators were identified, and 20 administrative documents were issued accordingly, forcing the operators to correct found violation within the timeframes identified by the Law.

Given the social importance in ensuring the continuity of interpersonal services provision to the electronic communications and access to Internet networks subscribers, and the consequences of a cyberattack on PJSC "Kyivstar" network (December 2023), which resulted in a temporary failure of network infrastructure elements, NCEC actively participated in measures to restore integrity and sustainability of the largest operator of Ukraine, renew the access to services, solving related problems of market participants and end users. Thus, NCEC held a number of meetings involving the mobile operators' experts, the Digital Ministry, SSU, SSSCIP, NCM and the Ukrainian Association of Operators "TELAS" regarding the correction of the cyber attacks' consequences on the network of PJSC "Kyivstar", in particular, working out possible options for the redistribution of the radio frequency spectrum in case of unforeseen situation's occurrence.

In order to determine the list of priority measures aimed at increasing stability of electronic communication networks and their infrastructure elements in conditions of full-scale military aggression of the Russian Federation against Ukraine, NCEC together with DPS2UA project experts developed "Report on technical assessment. Resilience plan for telecommunication networks of Ukraine", which was submitted to the relevant state authorities, military administrations, as well as to electronic communications operators by publication on the NCEC website (Decision NCEC dated 31.05.2023 No. 221).

1 CHAPTER

STATUS OF ELECTRONIC COMMUNICATIONS AND PROVISION OF POSTAL SERVICES MARKET DEVELOPMENT

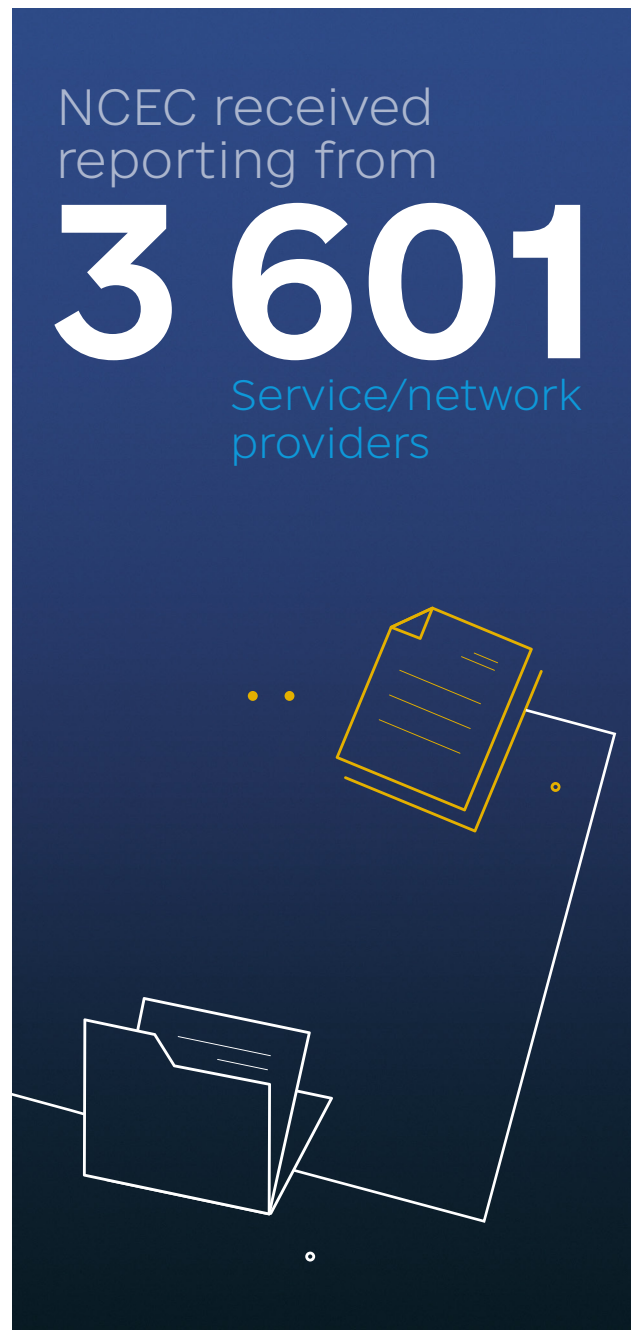
The sources of the information presented in Section 1 are:

- reporting data of network/service providers, received as of 01.03.2024 according to the reporting form No. 1-T "Telecommunications sphere" in accordance with the procedure for information submission by operators, telecommunications providers approved by the NCEC Decision dated 05.04.2016 No. 180, registered in the Ministry of Justice on May 18, 2016 under No. 739/28869;
- responses of network/service providers to relevant requests of NCEC;
- UCRF data.

At the same time, financial and economic indicators given excluding VAT, and without the data from the temporarily occupied territory of the Autonomous Region of the Republic of Crimea, the city of Sevastopol, as well as parts of the territories located in combat zones or those that are in temporary occupation, surrounded (blocked), in Donetsk, Luhansk, Zaporizhzhia and Kherson regions.

NCEC received reports from 3,601 networks/services providers. The mentioned reports were submitted electronically through the official NCEC website with the help of appropriate software means, with the authorized electronic signature according to the requirements of legislation in the field of electronic trusts services.

Annual report on the activities of NCEC for 2023 was prepared during martial law, introduced by the Decree on the introduction of martial law in Ukraine and taking into account the Law on protection of the reporting subjects' interests.



GENERAL INFORMATION ON STATE AND TRENDS IN DEVELOPMENT OF ELECTRONIC COMMUNICATIONS AND PROVISION OF POSTAL SERVICES MARKETS

Ukrainian electronic communications market suffers from the negative impact for the second year in a row due to the ongoing full-scale armed aggression of the Russian Federation against Ukraine and temporary occupation of the eastern and southern regions of Ukraine, full or partial destruction of the infrastructure of the communities in the front-line territories, moving citizens to the central and western regions of the country (over 4.5 million people), as well as outside Ukraine (more than 4 million people) with the purpose of obtaining temporary protection.

In 2023 total revenues from providing of communication services reached 130.5 billion

UAH comparing to 90.1 billion UAH in 2022. Revenue from the provision of electronic communications services was 97.3 billion UAH comparing to 83.2 billion UAH in 2022, and revenue from the provision of postal and courier services (the latter are included for the first time considering the legislative changes in the postal sector communications) in 2023 reached 33.2 billion UAH (Fig. 1.1 and 1.2).

Accordingly, in the structure of revenue from communication services provision the share of electronic services communications was 74.6%, and the share of revenue from provision of postal and courier services was 25.4%.

The structure of revenue from provision of communication services in 2023, billion UAH

The total amount is 130.5 billion UAH

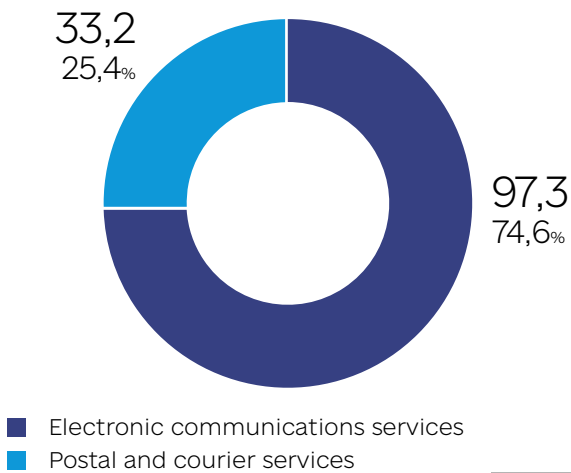


Figure 1.1

The structure of revenue from provision of communication services for 2022, billion UAH

The total amount is 90.1 billion UAH

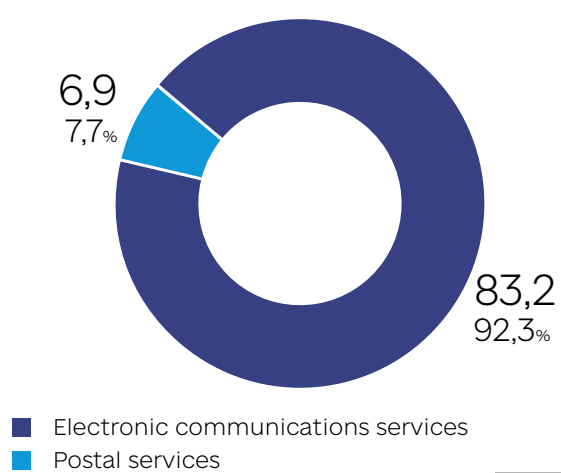


Figure 1.2

2023
130,5
 billion
 UAH total revenue
 from providing
 communication
 services

2022
90,1
 billion
 UAH total revenue
 from providing
 communication
 services



In the structure of revenue from the provision of electronic communication services in 2023, which specific weight in the total amount of revenue from the provision of communication services was 74.6%, the largest shares were: mobile communication – 63.4% and fixed access to the Internet – 21.8%, that are 61.7 billion UAH and 21.2 billion UAH respectively (Fig. 1.3).

Despite the full-scale armed aggression of Russian Federation against Ukraine, electronic sector of communications shows positive dynamics. Thus, the revenue from the provision of electronic communication services according to the results of 2023 reached 97.3 billion UAH, which is almost 17% more compared to 2022. Herewith, the inflation index in 2022 was 26.6%, and in 2023 – 5.1% (Fig. 1.4).

The structure of revenue from the electronic communication services provision in 2023, billion UAH

The total amount is 97,3 billion UAH

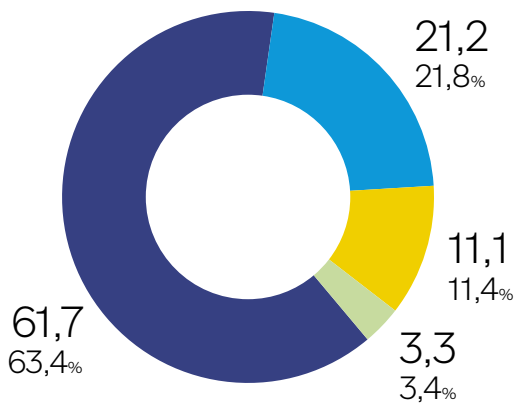


Figure 1.3

- Mobile communication
- Fixed access to the Internet
- Services for providing ducts, infrastructure facilities for usage etc.
- Fixed communication

Dynamics of revenue from provision of electronic communication services in 2021-2023, billion UAH

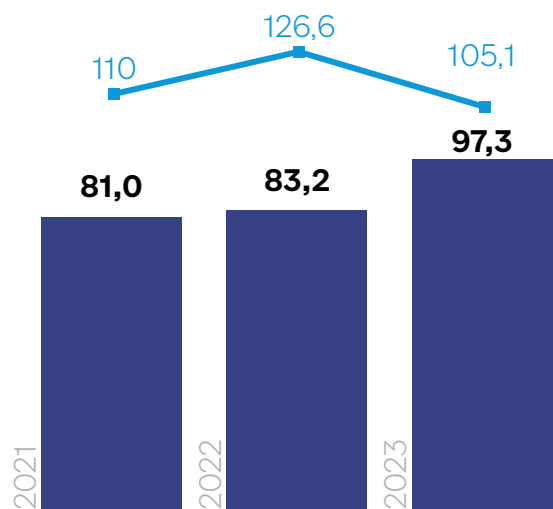


Figure 1.4

- Total revenue from the provision of electronic communication services
- Inflation index

Dynamics of changes in the structure of revenue from provision of electronic communication services for in 2021-2023 is shown in Fig. 1.5. Fixed access to the Internet shows the greatest increase, the growth in its revenue in 2023 compared to 2022 was 2.7 percentage points, mobile connection and fixed connection decreased by 4.2 and 0.8 percentage points, respectively.

Changes in the revenue structure from providing electronic communication services in 2023, %

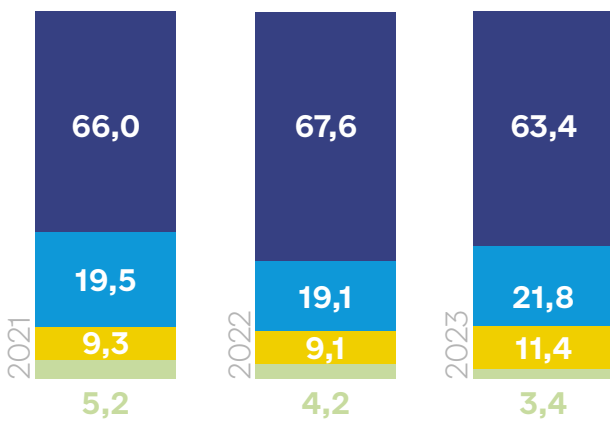


Figure 1.5

- Mobile Communication
- Fixed access to the Internet
- Services for providing channels, infrastructure facilities for usage, etc.
- Fixed communication

Despite all the difficulties, network providers continue to develop the field of electronic communications by developing existing electronic communications networks and restoring damaged ones. Accordingly, capital investments in the field of electronic communications in 2023 reached 18.9 billion UAH, which is 50% more compared to 2022 (Fig. 1.6).

Dynamics of the average number of employees involved in the field of electronic communications, indicates a decreasing trend of such employees by almost 10% on average per year (Fig. 1.7)

Dynamics of the amount of capital investments in the electronic communications field for 2021-2023, billion UAH

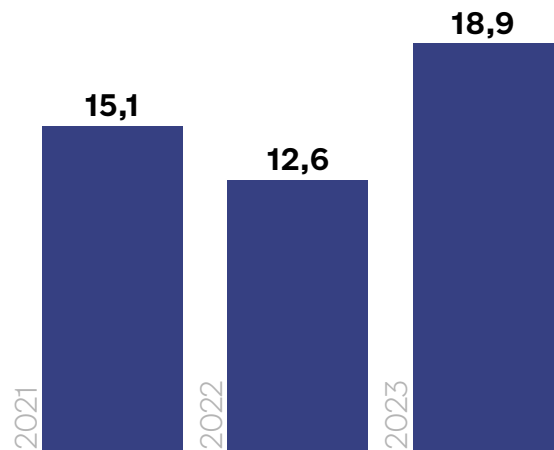


Figure 1.6

- The volume of capital investments in the field of electronic communications

Dynamics of the average number of employees involved in the field of electronic communications, thousands of people

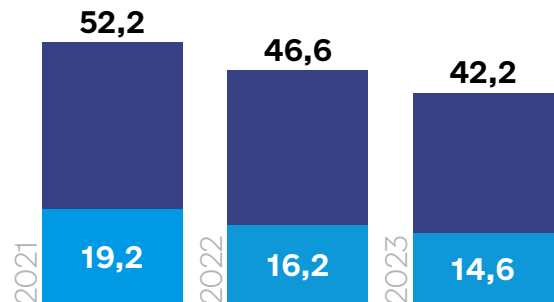


Figure 1.7

- Average number of employees, total
- Of them women

MAIN DIRECTIONS OF THE COMMUNICATION INDUSTRY DEVELOPMENT

Despite the full-scale armed aggression of the Russian Federation against Ukraine, network/service providers adapted to all nowadays challenges, continuing to improve the business processes and provide access to modern electronic communication services. That is, to a certain extent, is evidenced by the fact that as of 31.12.2023 the number of business entities, information about which is included in the Register of electronic communication networks and services providers, reached 4113, that is 2077 entities more than in 2022 (Fig. 1.8). Actual number of business entities that carry out activities with in the field of electronic communication services provision, reached the pre-war level, demonstrating the positive dynamics of sustainable development in the sector and indicating the growth of competition in almost all markets and on the territory of all regions.

The number of network and service providers included into the Register

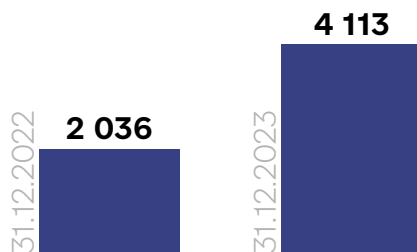


Figure 1.8

One of the main trends of electronic communications sector development became the technological modernization of access networks and their active transition to usage of fiber-optic technologies, as a result of growing demand from service subscribers and business users, with simultaneous refusal from maintaining and operating less productive and less energy efficient networks.

An important step towards the implementation of the Law on EC and the commitments made in accordance with Association Agreements in the field of electronic communication was:

- **Introduction of the emergency help system to the population with a single by phone number 112:**



Network/service providers during the year implemented a set of measures with gradual reconfiguration and configurations change of own networks for aggregation and call transfers of emergency communications number 112 from the local level to the regional level, in particular to two communication centers "Service 112" in the cities of Kyiv and Lviv. Short public emergency number 112 is opened from 01.07.2023 in public networks on the territories of the central macroregion, that includes the city of Kyiv, Kyivskiy, Zhytomyskryi, Vinnytskyi, Cherkaskyi and Chernihivskiy regions, and from December 2023 commutation center "Service 112" was connected to public networks in the western macroregion, covering the city of Lviv and Lvivskiy region. The beginning of the project implementation indicates the organizational and technological capacity of mobile and fixed networks for rerouting traffic of emergency communications services from local networks to nationwide level by transferring calls to regional commutation centers of operative dispatch services for emergency assistance.

- **implementation of the effective operator model (LRIC):**

NCEC experts together with network providers and Detecon International GmbH as part of the DPS2UA project have developed model of the effective operator (Bottom-up LRIC), which was approved by the decision of NCEC dated 07.06.2023 No. 225 "On approval of the effective operator model " and No. 226 "On publication of calculation results for the termination services cost of national traffic for mobile and fixed voice communication".

In order to implement the specified model the following documents were approved:

- NCEC resolution No. 322 dated 23.08.2023 "On approval of the Procedure for estimating the fees for termination services of national traffic for mobile and fixed voice communication", registered in the Ministry of Justice 08.09.2023 No. 1592/40648
- NCEC resolution No. 391 dated 18.10.2023 "On the approval of settlement fees for termination services in national traffic for mobile and fixed voice communication", registered in Ministry of Justice on 01.11.2023 No. 1898/40954.

The implementation of the LRIC model helps to develop competition in the electronic communications market by forming the rates for termination services based on costs effective operator model and as a result creating the affordable prices for subscribers.

Data collection, development and implementation of the LRIC model under martial law is a unique experience and great achievement of Ukraine on the way to integration into the EU Single Digital Market.

At the same time, the ongoing armed aggression of the Russian Federation against Ukraine leads to electronic communication networks and its infrastructure damage as a result of cyber attacks, combat actions and missile strikes, which in turn leads to the need for additional financial expenses by network/service providers for repair of such damages. A powerful cyber attack on the national network communication operator PJSC "Kyivstar" can be given as an example of negative impact of the aggressor's actions, which took place on 12.12.2023.

The main problematic issues of the electronic communications and service provision postal service spheres remains availability and the quality of service provision in rural and remote areas, as well as rebuilding problems with service provision in the territories that suffer from hostility actions.



STATUS OF THE MOBILE COMMUNICATION SERVICES MARKET DEVELOPMENT

Revenue from the provision of mobile communications in 2023 services reached 61.7 billion UAH, its specific weight in the total amount of revenue from provision of electronic communication services was 63.4%.

In the structure of revenue from the provision of services the largest shares are mobile communications revenues from the provision of data transition services, including access to the Internet – 66.4%, reaching 41.0 billion UAH and revenues from provision of voice communication services – 12.0%, reaching 7.4 billion UAH, the total share of which was 78.4% (Fig. 1.9).

Revenue from the mobile services provision demonstrates positive dynamics, so for by the end of 2023, revenues increased by 9.8% compared to 2022 (Fig. 1.10).

The structure of revenue from electronic communication services provision in 2023, billion UAH

The total amount is 61.7 billion UAH

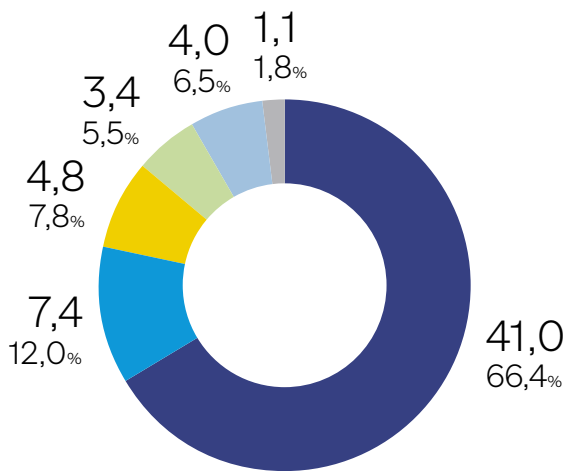


Figure 1.9

- Data transfer services, including Internet access
- Voice services for users
- Provision of services to other network providers
- Services for sending sms, mms messages to users
- International roaming services for users
- Other services (number porting, national roaming and other services)



Dynamics of revenue from mobile communication services provision in 2021-2023, billion UAH

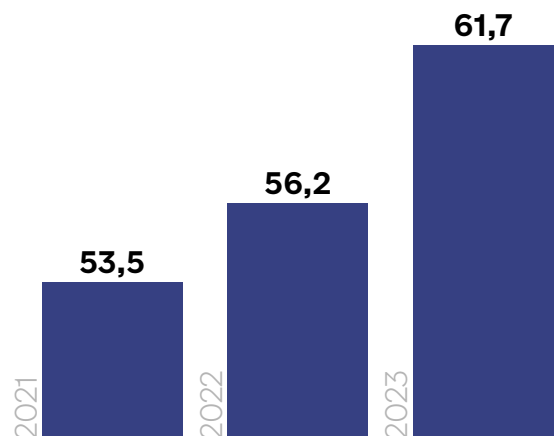


Figure 1.10

In 2023 a trend of increase in revenue compared to 2022 is observed from (Fig. 1.11):

- provision of data transmission services, including access to the Internet – 3.6 percentage point;
- provision of international roaming services for users – 1.3 percentage point.

However, in 2023, revenues from provision of services to other providers networks compared to 2022, respectively their share in the revenue structure decreased by 4.2 percentage point.

Dynamics of the revenue structure from provision of mobile communication services in 2021-2023 years, %

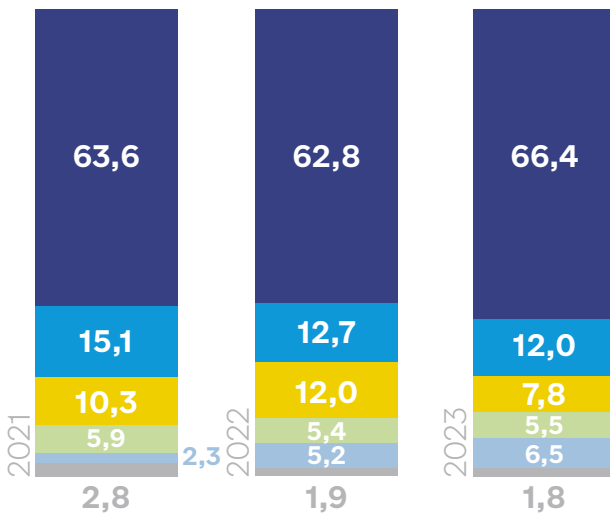


Figure 1.11

- Data transfer services, including Internet access
- Voice services for subscribers
- Provision of services to other network providers
- Services for sending sms, mms messages to subscribers
- International roaming services for subscribers
- Other services (number porting, national roaming and other services)

Number of active cards of the mobile communication network as of December 31, 2023, reached 50.3 million units, which is 2% more than as of 31.12.2022 and by 5.6 million less than as of 31.12.2021 (Fig. 1.12). The reason is related to the full-scale invasion of the Russian Federation on the territory of Ukraine, unavailability of mobile communication networks on temporarily occupied territories

of Ukraine, cyber attack on the network of PJSC "Kyivstar" (December 2023) and due to population migration in order to seek refuge outside the borders of the country.

Dynamics regarding the active identification cards amount of mobile communications network in 2021-2023, million units

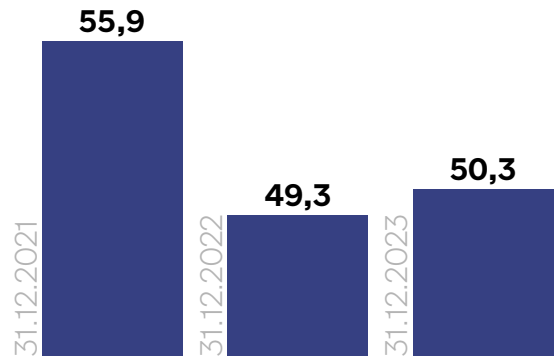


Figure 1.12

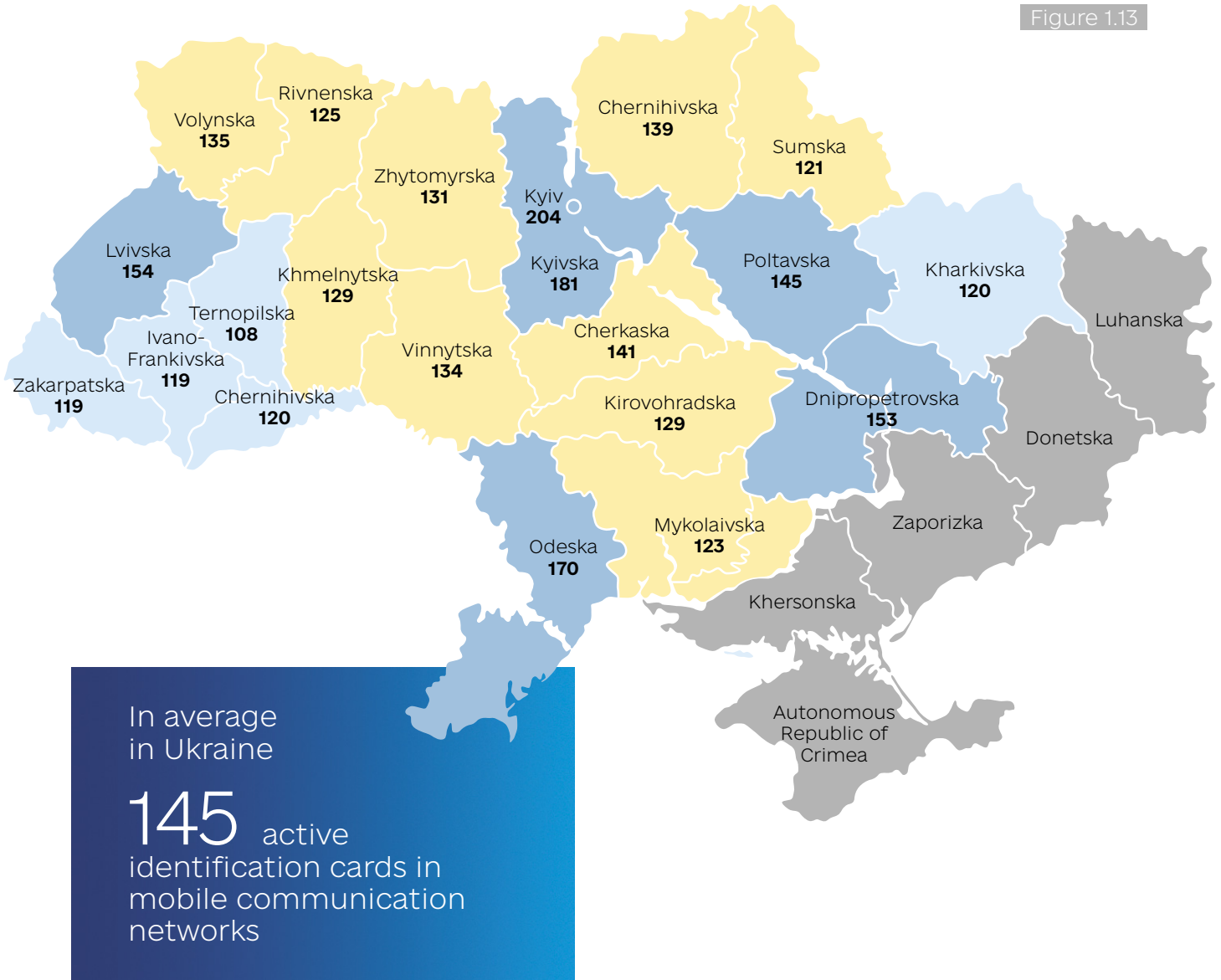
amount of active mobile communication cards

50,3
million



Mobile communication coverage per 100 inhabitants*, by region as of 31.12.2023

Figure 1.13



- Regions with the highest mobile communication provision
- Regions with the lowest provision mobile communication

* The data is given without taking into account the data of the Autonomous Republic of Crimea and the city of Sevastopol, as well as parts of the territories, which are located in the area of military operations (combat) actions or which are in a temporary occupation, encirclement (blockade), in Donetsk, Luhansk, Zaporizhzhsk and Kherson regions

Average monthly revenue from providing services of mobile communication per one active card (ARPU) in 2023 increased by 7.5% compared to 2022 year and amounted to 102.1 UAH (Fig. 1.14).

Average monthly revenue from provision of mobile communication services per active identification card, UAH/month

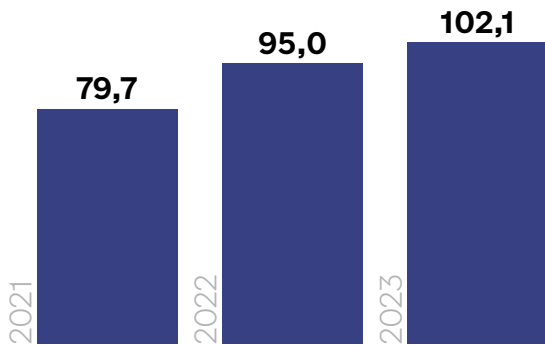


Figure 1.14

INTERNATIONAL ROAMING

According to the results of 2023, revenue from provision of international roaming services amounted to 3.96 billion UAH, which is 1.3 times more than in 2022 and 3.3 times more than in 2021 (Fig. 1.15). This is related to the forced migration of the population of Ukraine to other countries of the world, primarily to EU member states, as a result of full-scale invasion of the Russian Federation on the territory of Ukraine.

Dynamics of revenue from international roaming services provision for 2021-2023, billion UAH

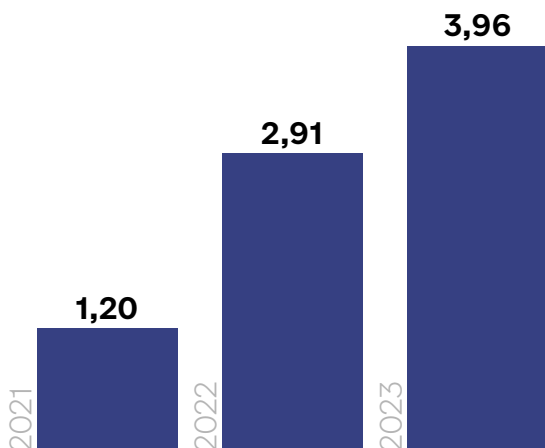


Figure 1.15

M2M SERVICES

Dynamics of mobile network active identification cards amount, used to receive M2M services, as of 31.12.2023, almost reached the pre-war level and amounts to 3.66 million units. (Fig. 1.16).

Dynamics of the number of the mobile communication network active identification cards by M2M service in 2021-2023, million units

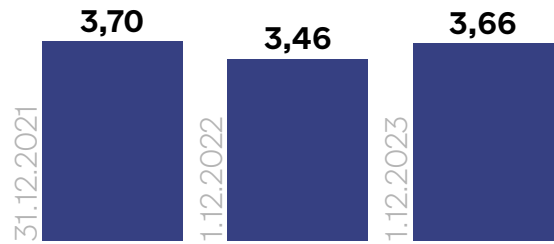


Figure 1.16

MOBILE INTERNET

The total number of active cards in the mobile communication network, that were used for the access to the Internet, as of 31.12.2023, the amount was 36.9 million units and comparing to the same period last year it increased by 4.2% (Fig. 1.17).

Since the introduction of radio technology "International mobile communication IMT" number of active cards in network that were used for the 4G standard Internet network, as of On December 31, 2023, reached 29.8 million units.

Dynamics of the number of active cards in mobile communications network, which were used for Internet accessed, million units.

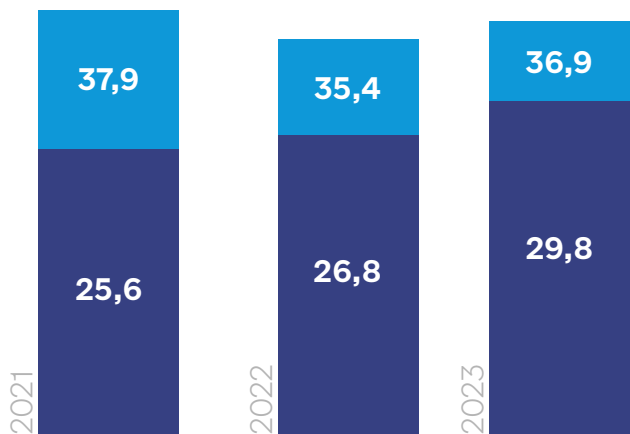


Figure 1.17

- 4G standard
- Total (active SIM, USIM, R-UIM)

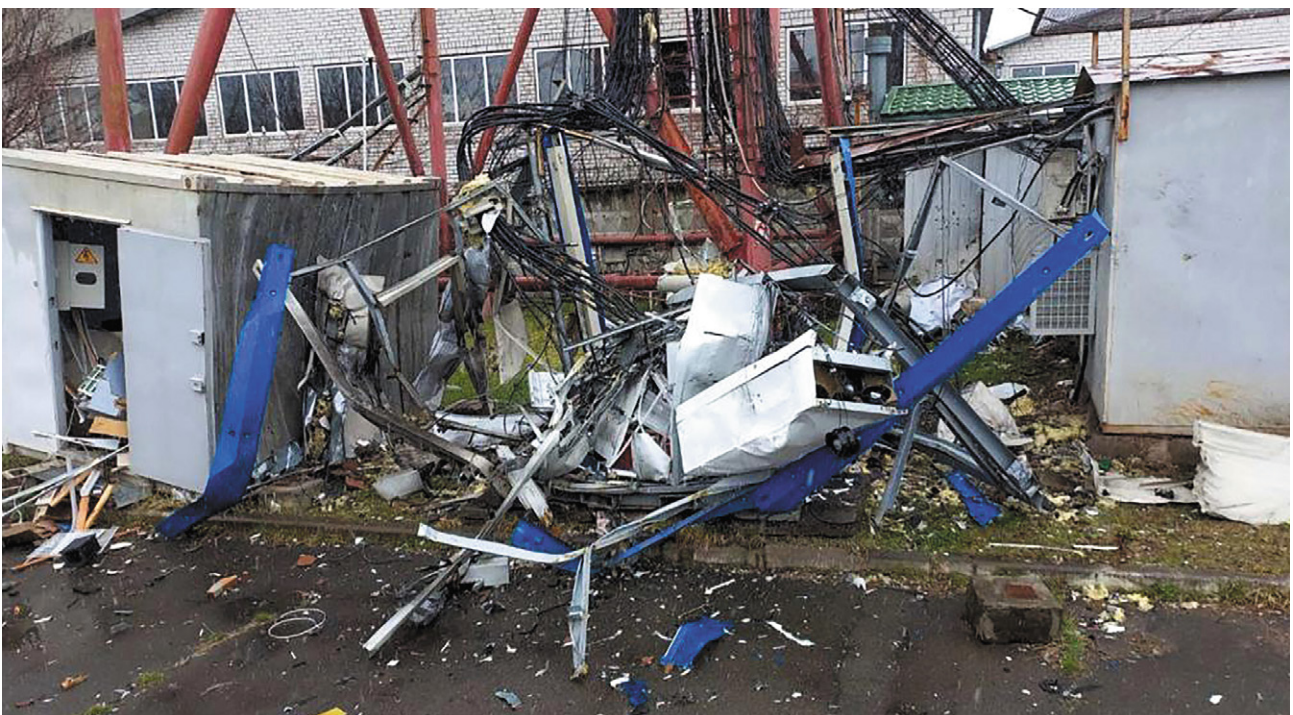
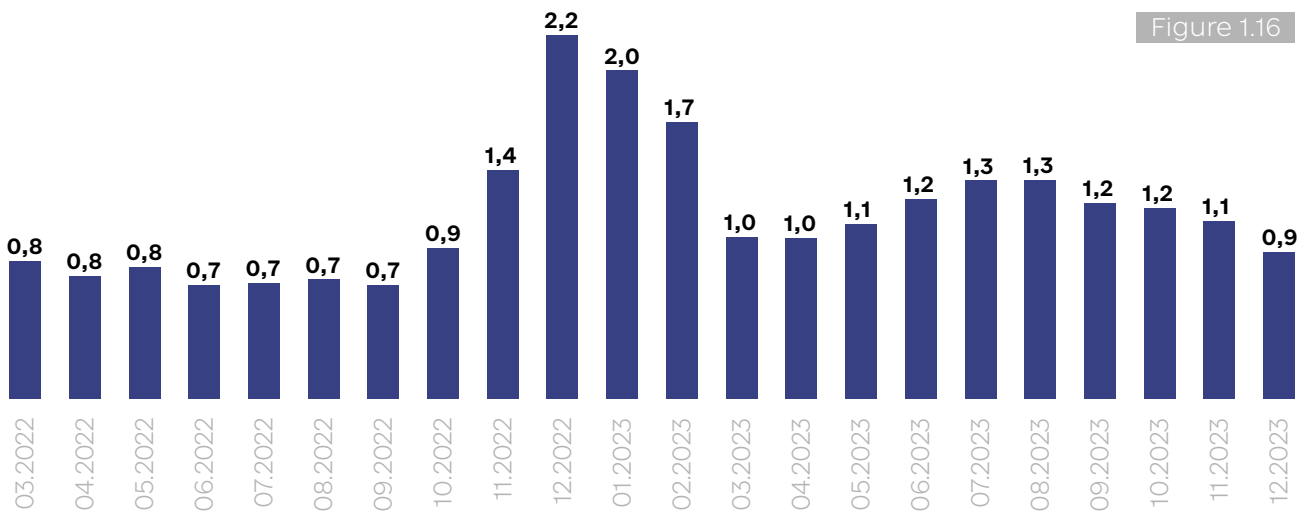
NATIONAL ROAMING

Dynamics of the users' number for national roaming service confirms the efficiency of service implementation in order to ensure public access to mobile communication services in case of certain infrastructure elements damage and destruction or in case of temporary absence of power supply as a result of the aggressor's actions. Thus, on average during 2023 the specified service was used by more than 1 million users per day, which allowed such users to stay in touch, to be able to use the voice communication services, SMS transmission and perform calls to emergency services.

It is important to note that the largest number of national roaming services users was observed in the period between the 4th quarter of 2022 and the 1st quarter of 2023 (Fig. 1.18). Listed dynamics demonstrates that the demand for services of national roaming is growing precisely in those moments when there is no network coverage of home service provider or as a result of damage to infrastructure elements (lack of power supply, damage of fiber-optic communication lines or physical destruction of base stations).

Dynamics of the number of the national roaming service users, million/per day

Figure 1.16



NUMBER PORTABILITY SERVICES

In 2023, the number of subscribers who used number porting service in mobile communication to use another service provider,

reached 143.9 thousand, which is twice as much than in 2022.

Donor Recipient	PJSC Vodafone Ukraine	PJSC Kyivstar	LLC Intertelecom	LLC Lifecell	LLC TriMob	In total ported to:
PJSC Vodafone Ukraine	X	12 031	169	13 916	72	26 188
PJSC Kyivstar	5 625	X	42	6 833	24	12 524
LLC Intertelecom	38	32	X	14	0	84
LLC Lifecell	51 988	52 509	314	X	195	105 006
LLC TriMob	25	20	1	29	X	75
In total ported from:	57 676	64 592	526	20 792	291	143 877

According to the results in 2023, the largest number of subscribers ported numbers to the LLC "lifecell", to which transferred 72.9% of subscribers from total ported ones.

In general, starting from the services implementation date (01.05.2019), 396.2 thousand subscriber numbers of mobile networks were ported, which allowed the end users of the services to exercise their rights regarding free choice of a service provider based on the criteria of price/quality/area of coverage.





STATUS OF THE FIXED INTERNET ACCESS SERVICES MARKET DEVELOPMENT

Revenue from the provision of internet access services to fixed network in 2023 was 21.2 billion UAH, its specific weight in the total the amount of revenue from the provision of electronic communication services was 21.8%.

According to the results in 2023, the amount of revenue from provision of fixed access services to Internet users reached 20.3 billion UAH, to network providers – 0.9 billion UAH, the total volume of which increased by 33.3% (Fig. 1.19).

Dynamics of revenue from the access services provision to a fixed internet network in 2021-2023, billion UAH

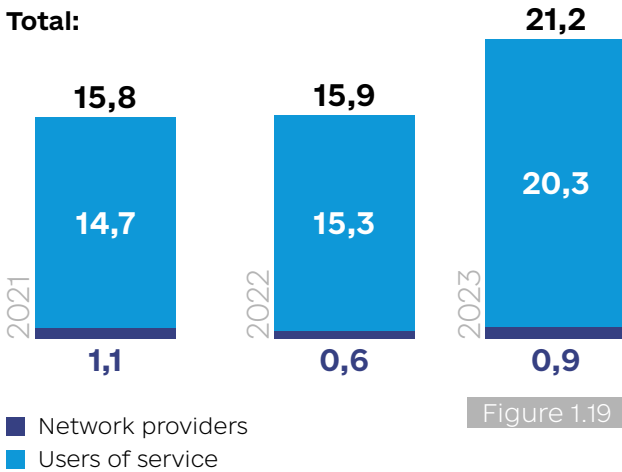


Figure 1.19

As of 31.12.2023, the number of fixed Internet access lines (points) reached 8.06 million units, that is almost 12% more compared to 31.12.2022. The number of such lines in rural areas increased by 25.4% and reached 2.12 million units, which indicates an increase in broadband Internet access accessibility in rural areas (Fig. 1.20).

Dynamics of lines (points) amount for fixed access to Internet, million units

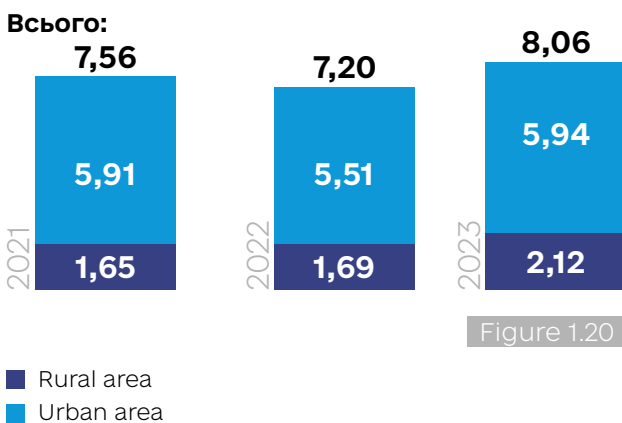


Figure 1.20

In the distribution structure of the fixed access to Internet the lines (points) in terms of technologies the largest number consists of lines with a fiber optic cable, reaching 7.1 millions, the total share in 2023 was 88.1%, of which FTTx – 46.8% and xPON – 41.3% (Fig. 1.21). Given the dynamics of digital progress, xPON technology is not only marked by steady growth in the electronic communications market, but also has a potential to implement a gigabit connection, which corresponds to the pan-European development strategy of gigabit connection.

The structure of the fixed Internet access distribution of lines (points) in terms of technologies, million units.

Total quantity: 8.06 millions.

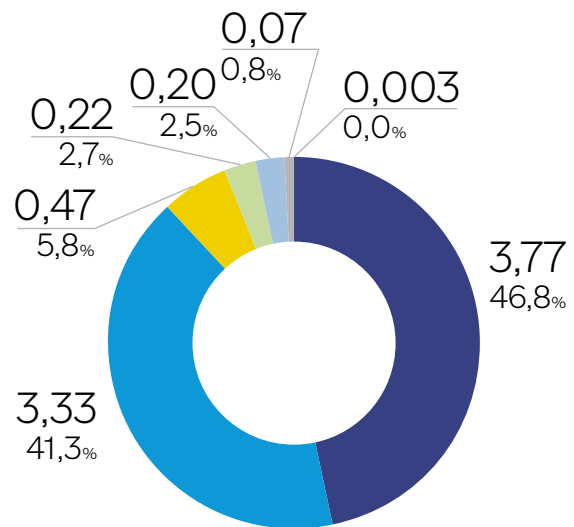


Figure 1.21

- Using a fiber optic cable (FTTx)
- Using a fiber optic cable (xPON)
- Using other technologies
- By xDSL technology
- Using a coaxial cable (DOSSIS)
- Using broadband fixed radio access technology
- Satellite Internet technology



lines using fiber optic cable
7,1 millions units

In 2023 the share of lines (points) in fixed access to the Internet using fiber optic cable compared to 2022 (Fig. 1.22):

- xPON increased by 17.7%
- FTTx decreased by almost 9%

Increase in xPON technology is driven by gigabit access speed technological potential and related to the cases with no stable power supply due to the destruction of energy infrastructure facilities as a result missile attacks.

Despite the consequences of full-scale armed aggression of the Russian Federation against Ukraine on the sector of broadband access to Internet, active demand stimulates providers of fixed internet access services to continue implementing measures in order to expand and modernize their networks and their elements.

Dynamics of line (points) distribution structure of fixed access to Internet in terms of technologies in 2021-2023, %

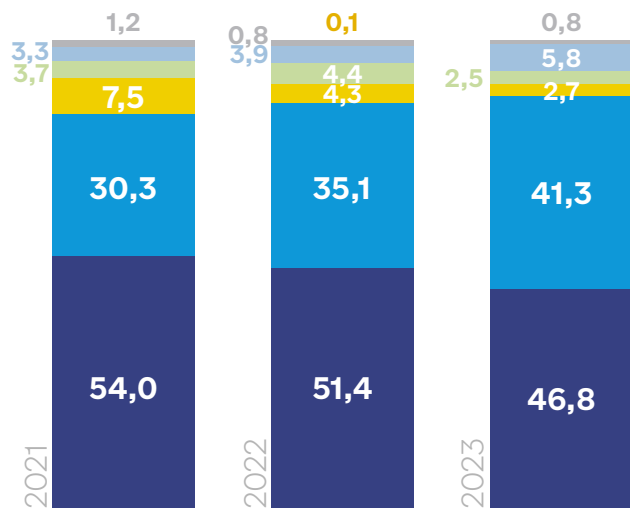


Figure 1.22

- Using a fiber optic cable (FTTX)
- Using a fiber optic cable (xPON)
- Using other technologies
- By xDSL technology
- Using a coaxial cable (DOSSIS)
- Using broadband fixed radio access technology
- Satellite Internet technology



In the speed distribution structure of fixed internet access lines (points) the largest number of lines (points) of fixed access are (Fig. 1.23):

- at a speed from 30 to less than 100 Mbit/s more than 4.2 million.
- at speeds from 100 Mbit/s to less than 1 Gbit/s – more than 2.8 million.

The total share of the specified lines in the total number of lines (points) of fixed internet access in 2023 was 88.1%.

The speed distribution structure of the distribution of fixed Internet access lines (points), million

Total quantity: 8.06 million

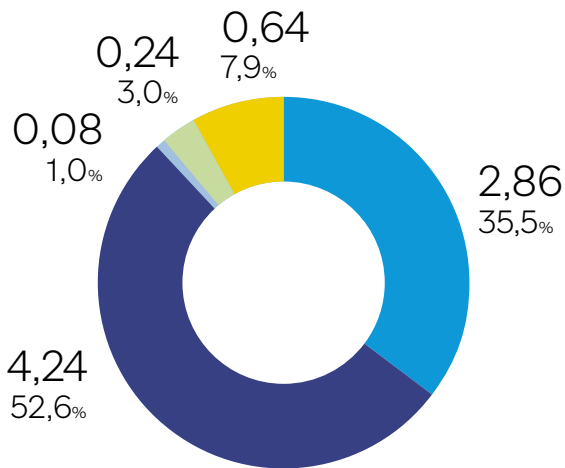


Figure 1.23

- From 30 Mbps to less than 100 Mbps
- From 100 Mbps to less than 1 Gbps
- From 2 Mbps to less than 30 Mbps
- 1 Gbit/s and more
- Less than 2 Mbps

The speed distribution dynamics of the of fixed Internet access lines (points) shows a tendency to increase the fixed Internet lines (points) speed (Fig. 1.24):

- from 100 Mbit/s to less than 1 Gbit/s – by 30.0%
- 1 Gbit/s and more – more than 75%, respectively more compared to 2022.

Distribution structure dynamics of the fixed Internet access lines (points) speed in 2021-2023 years, %

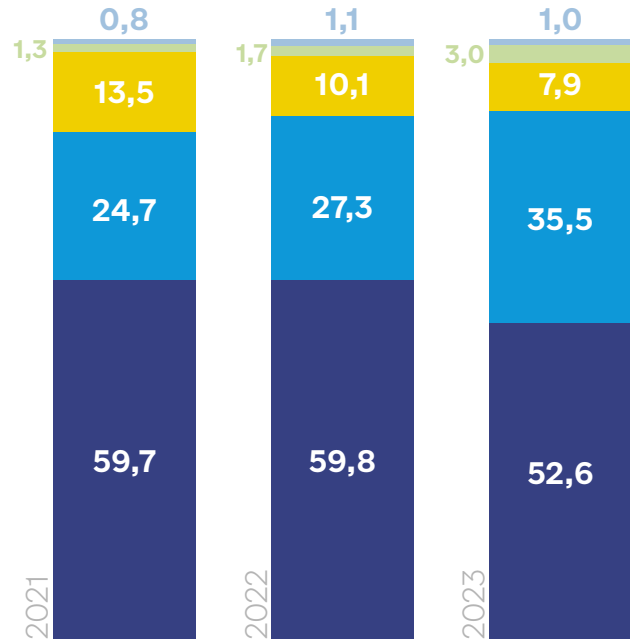


Figure 1.24

- From 30 Mbps to less than 100 Mbps
- From 100 Mbps to less than 1 Gbps
- From 2 Mbps to less than 30 Mbps
- 1 Gbit/s and more
- Less than 2 Mbps

Average monthly revenue from providing fixed Internet access services per subscriber (ARPU) in 2023, is increased by 18.6% in comparison with 2022 and reaches UAH 219.0/month (Fig. 1.25).

Average monthly revenue from providing fixed Internet access services per one fixed Internet access line (point), UAH/month

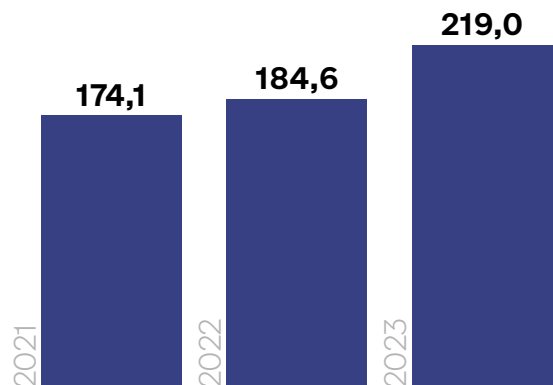
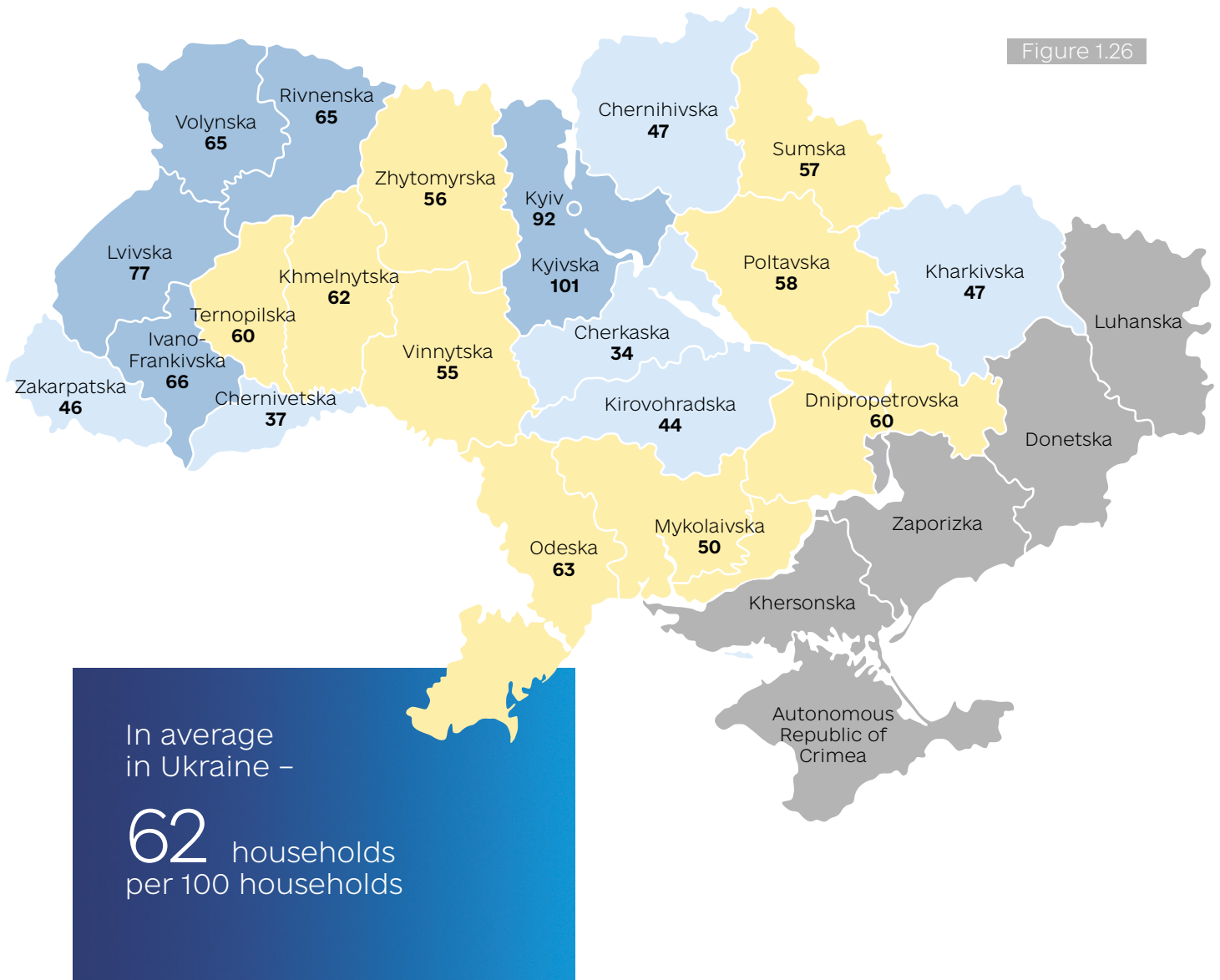


Figure 1.25

Providing households with fixed Internet access per 100 households*, by region as of 31.12.2023

Figure 1.26



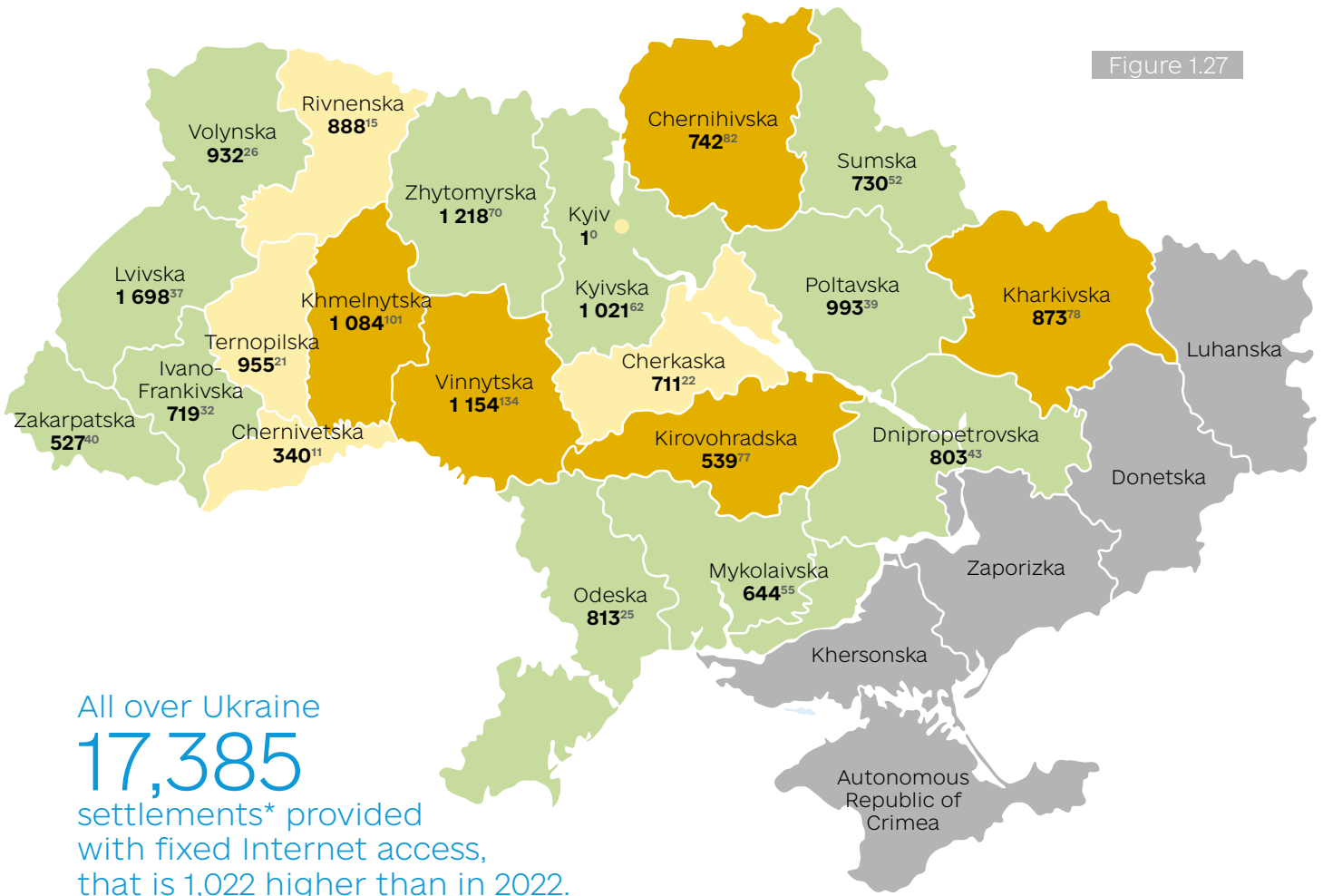
- Regions with the highest provision of households with fixed Internet
- Regions with the lowest provision of households with fixed Internet

* The data are given without taking into account the data from the Autonomous Republic of Crimea and the city of Sevastopol, as well as parts of the territories, which are located in the area of military operations (combat) actions or which are in a temporary state occupation, encirclement (blockade), in Donetsk, Luhansk, Zaporizhzhia and Kherson regions



A number of settlements in Ukraine* that are provided with fixed Internet access and changes in the number comparing to 2022, by region as of 31.12.2023

Figure 1.27



■ Regions with the highest fixed Internet access points growth per settlement

■ Regions with the lowest fixed Internet access points growth per settlement

Broadband internet access is a key element for the development of modern digital society and economy, which promotes innovation, increases competitiveness and improves population life quality. Provision of broadband Internet access opens up unlimited opportunities for consumers to get access to various digital services, such as: electronic administrative services, Internet banking, search engines, electronic means of learning and education, e-commerce, telemedicine, mass information facilities and many others. Thus, for the purpose

of creating organizational and legal conditions for ensuring consumer access to universal electronic communication services by Order of the SSSCIP dated 23.06.2023 No. 549, registered in the Ministry of Justice 06.07.2023 under No. 1150/40206, broadband Internet access service in a fixed location that provides data transfer rate at the end point at least 30 Mbit/s is classified as the universal electronic communication service.

Service providers continue to implement measures to ensure free and passwordless access to the Internet through Wi-Fi networks under their control, in public places and/or on the premises of subscriber service centers, aimed to provide communication for the population in the absence of power supply.

* The data are given without taking into account the data from the Autonomous Republic of Crimea and the city of Sevastopol, as well as parts of the territories, which are located in the area of military operations (combat) actions or which are in a temporary state occupation, encirclement (blockade), in Donetsk, Luhansk, Zaporizhzhia and Kherson regions

STATUS OF THE VOICE SERVICES FIXED COMMUNICATION MARKET DEVELOPMENT

Revenue from the fixed communication services provision in 2023 reached 3.3 billion UAH, which is 5.7% less than in 2022, and specific weight in the total amount of revenue from provision of electronic communication services was 3.4%. (Fig. 1.28).

Dynamics of revenue from fixed voice communication services provision in 2021-2023, billion UAH

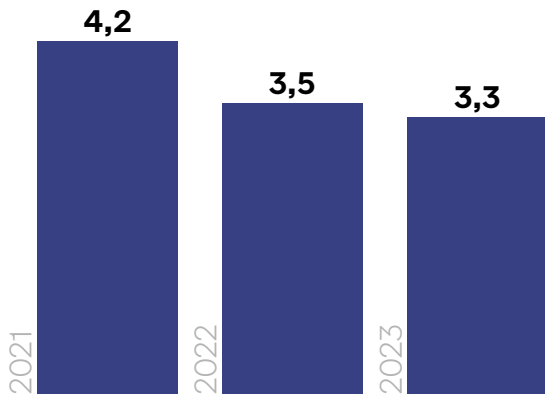


Figure 1.28

In the structure of revenue from the fixed communication services provision, the largest share is 45.7%, that is the revenue from providing local telephone communication services (Fig. 1.29).

The structure of revenue from fixed voice communication services provision in 2023, billion UAH

The total amount is 3.33 billion UAH

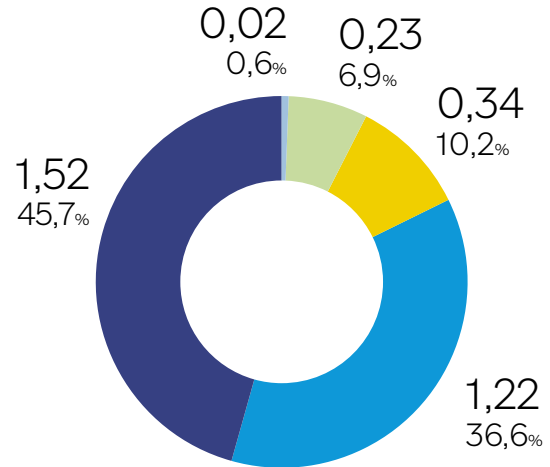


Figure 1.29

- Local telephone connection
- Provision of other fixed telephone communication services
- Revenues from providing services to network providers
- Long-distance telephone communication
- International telephone communication

Structure dynamics of the revenue from fixed voice services provision shows a decrease in the share of revenue from provision of services to network providers, international and long-distance telephone communication by 7.0 and 0.5 and 2.7 percentage point accordingly. Decrease in demand for fixed connection services, leads to corresponding reduction in fixed voice communication services traffic volumes. At the same time, a share from the provision of other fixed telephone communication services increased by 11.2 percentage point, which indicates its strategic development and adaptation to new market requirements (Fig. 1.30).

Revenue from the provision of fixed communication services

3,3 billion UAH





Dynamics of revenue structure from providing the fixed voice communication services in 2023, %

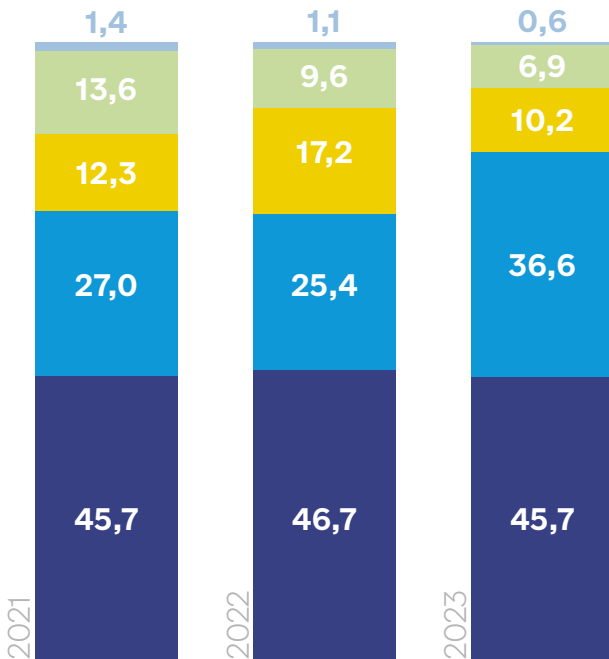


Figure 1.30

- Local telephone connection
- Provision of other fixed telephone communication services
- Revenues from providing services to network providers
- Long-distance telephone communication
- International telephone communication

The trend of decreasing demand for fixed communication services is maintained, thus, as of 31.12.2023, the number of lines is fixed communication amounted to 1.4 million units, which is 17.6% less than as of 31.12.2022 (Fig. 1.31).

Dynamics of fixed communication (fixed lines) subscriber numbers in 2021-2023, million

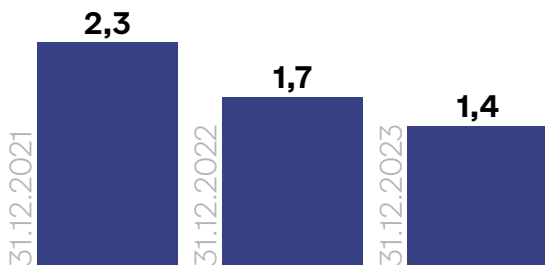


Figure 1.31

Average monthly revenue from fixed voice communication services per subscriber of fixed communication (fixed lines) (ARPU) in 2023, increased by 15.7% and reached 193.5/month UAH (Fig. 1.32).

Average monthly revenue from providing fixed voice services connection per subscriber of fixed communication (fixed lines) in 2021-2023, UAH/month.

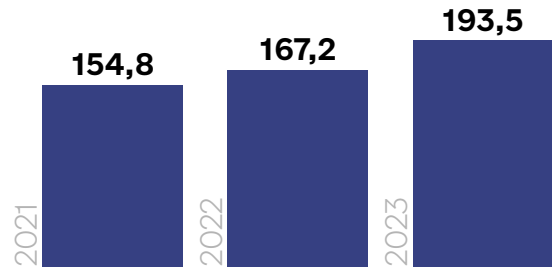


Figure 1.32

Numerous destructions and damage of electronic communication infrastructure networks, primarily their subscriber network lines, significantly complicate the support and restoration of their working capacity, lead to a long absence of communication and decrease the population's demand for fixed voice communication services provided using analog technologies accordingly. The consequence of this situation is the extra drop in the annual reduction in the total number of fixed voice services communication end users. At the same time, it is actively increasing the number of consumers in rural areas and business user's demand for SIP telephony services using both networks of a fixed connection with a non-geographic plan numbering, as well as geographic local numbers telephone networks (virtual PBXs, distributed virtual offices, remote workplaces, etc.).

In the conditions of growing competition in the voice communication services' markets the preference is given to mobile networks, a pressing issue for fixed voice services providers in the implementation of modernization projects and optimization of own electronic communication networks for the purpose of transforming activities in the direction of services expansion, quality increases, search for new innovative approaches to work with subscribers.

In addition, changes in approaches to regulating the voice electronic communications traffic routing that were carried out by NCEC during 2023, opened for providers the possibility of fixed voice communication services development in flat networks using high-performance switching systems by canceling the segregation of traffic into local and long-distance, combining them into a national, as well as granting the right to providers to carry out traffic routing in own electronic communication networks according to its own internal rules.

ELECTRONIC COMMUNICATION NETWORKS INFRASTRUCTURE ACCESS SERVICES

Revenues from providing ducts to telecommunications and infrastructure facilities usage in 2023 reached 11.1 billion UAH, their share weight in the total amount of revenue from electronic communication services provision was 11.4% (Fig. 1.33).

The structure of revenue from telecommunications ducts services provision, infrastructure objects usage etc. in 2023, billion UAH

The total amount is 11.1 billion UAH

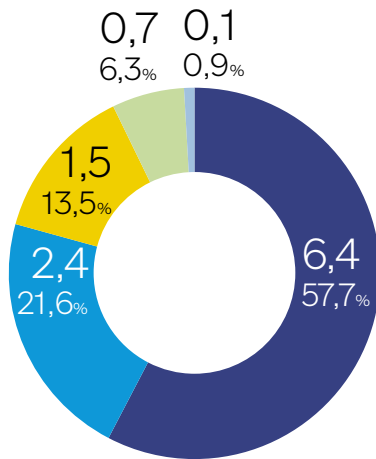


Figure 1.33

- Provision of other services for implementation activities in the field of electronic communications
- Provision of technical services, maintenance and operation of telecommunication networks, broadcast television and radio networks
- Provision of telecommunication ducts for use and/or data transfer
- Providing the use of telecommunication lines, electronic communications networks and/or its parts
- Providing cable ducts for telecommunication usage

In the structure of revenues from the provision of services in use of telecommunication ducts 6.4 bln UAH are revenues from the provision of other services for carrying out activities in the field of electronic communications, which include such services as: transmission of signals in electronic communications networks for cable television, data center (hosting) services, access fee and using the mobile network, rental of electronic communication networks, providing range of IP addresses for use, works related to centralized technical administration of porting subscriber's numbers, etc.

In the structure dynamics of the revenue from the use of telecommunication ducts services, infrastructure facilities provision, etc. in 2023 there is an increase in the share of provision of other services for implementation activities in the field of electronic communications by 13.2 percentage point compared to 2022 year, and a decrease in shares from (Fig. 1.34):

- provision of maintenance services and telecommunication networks operation, television and radio broadcasting networks – on 8.6 percentage point;
- provision of telecommunications and/or data transmission channels – by 1.3 percentage point;
- provision of telecommunication lines and/or elements for electronic communications networks – by 2.9 percentage point;
- provision of cable ducts for telecommunication use – by 0.4 percentage point.

Dynamics of the revenue structure from provision of services for telecommunication ducts, infrastructure, etc. in 2023, %

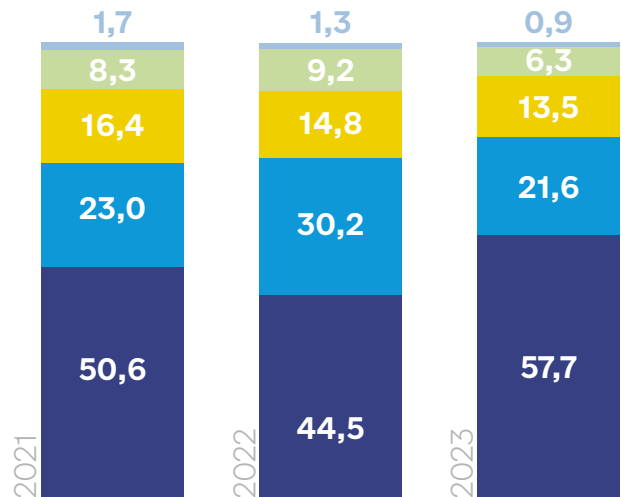


Figure 1.34

- Provision of other services for implementation activities in the field of electronic communications
- Provision of technical services, maintenance and operation of telecommunication networks, broadcast television and radio networks
- Provision of telecommunication lines for use and/or data transfer
- Providing the use of telecommunication lines, electronic communications networks and/or its parts
- Providing cable ducts for telecommunication usage



STATUS OF THE POSTAL COMMUNICATION SERVICES MARKET DEVELOPMENT

On May 25, 2023, the Law on Postal Services came into force, according to which NCEC was assigned new powers of the national regulator in the field of postal services provision. The law defines the legal, socio-economic and organizational foundations of activity in the field of postal services provision and also regulates relations between state authorities and local authorities, postal operators and users of their services.

For the implementation of the Law on Postal Services in 2023, NCEC has developed and approved 4 by-laws regarding:

- procedure and way of introducing a single state register of postal operators;
- the order of reports and information submission by postal operators;
- regulation and implementation procedure for postal communication services prices (tariffs) for forwarding internal shipments and registered letters without declared values (recommended) weighting up to 50 grams and postal cards and changes to the regulation;
- marginal prices (tariffs) for postal communication services with internal forwarding shipment and registered letters without declared value (recommended) weighting up to 50 grams and postcards.



Developed
and approved

4 by-laws

In addition, by Order of the Ministry of Infrastructure dated 25.05.2023 No. 430 "On definitions of designated operator of postal communications services JSC "Ukrposhta" is defined as designated operator of postal services.

Liberalization of the postal and courier services market led to simplification procedures for starting business activities that caused increase in the number of postal operators and the scope of services provided by them. Accordingly, in the Register of Postal Operators as of 30.12.2023, 205 entities were registered, which is almost 14% more comparing to 2022.

Considering the martial law introduced by the Decree on the introduction of martial law in Ukraine, and taking into account the Law

on the Protection of Interests of reporting entities the problem of comprehensive and timely information submission by operators remains, as well as problem with the annual provision of statements from the operators regarding their activities in the field of postal services provision. This situation complicates the creation and implementation of reasonable state regulatory policies in the field of postal services communications provision and due the peculiarities of martial law in Ukraine operators of postal services, in accordance with the law, may not provide appropriate reporting and statements, or provide it with incorrect information to the Postal Register, and in addition to that it is complicated by the imperfection of the law regarding the responsibility of operators for violation.

Reporting by postal operators in 2023



Figure 1.35

According to the submitted report regarding the activities of postal operators in 2023, revenue from the provision of postal and courier services amounted to 33.2 billion UAH. The largest share in the revenue structure is the revenue from

postal services domestic shipments – 91.2%, while the share of revenues from international post – 4.9% and the share of revenues from courier services – 3.9%.

The structure of revenues from the provision of postal and courier services in 2023, billion UAH

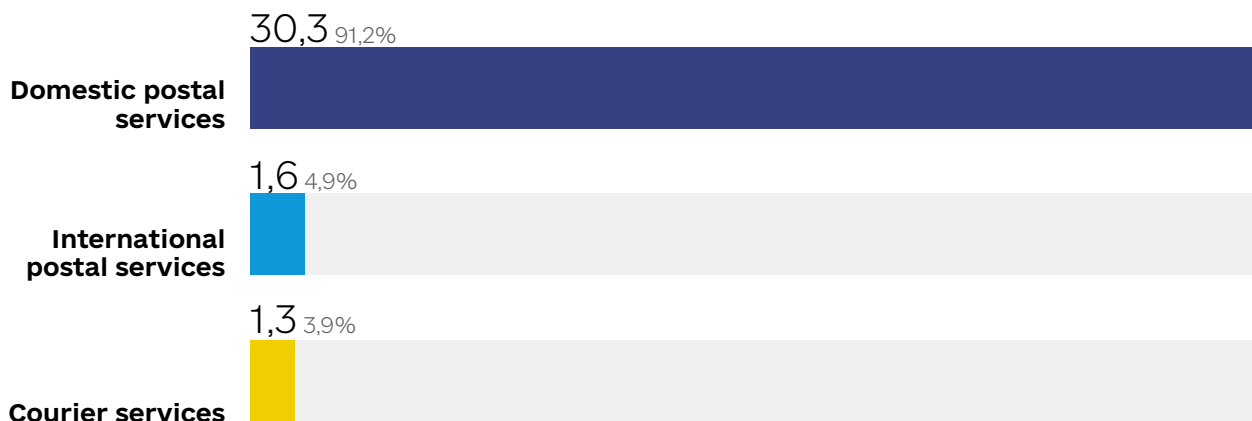
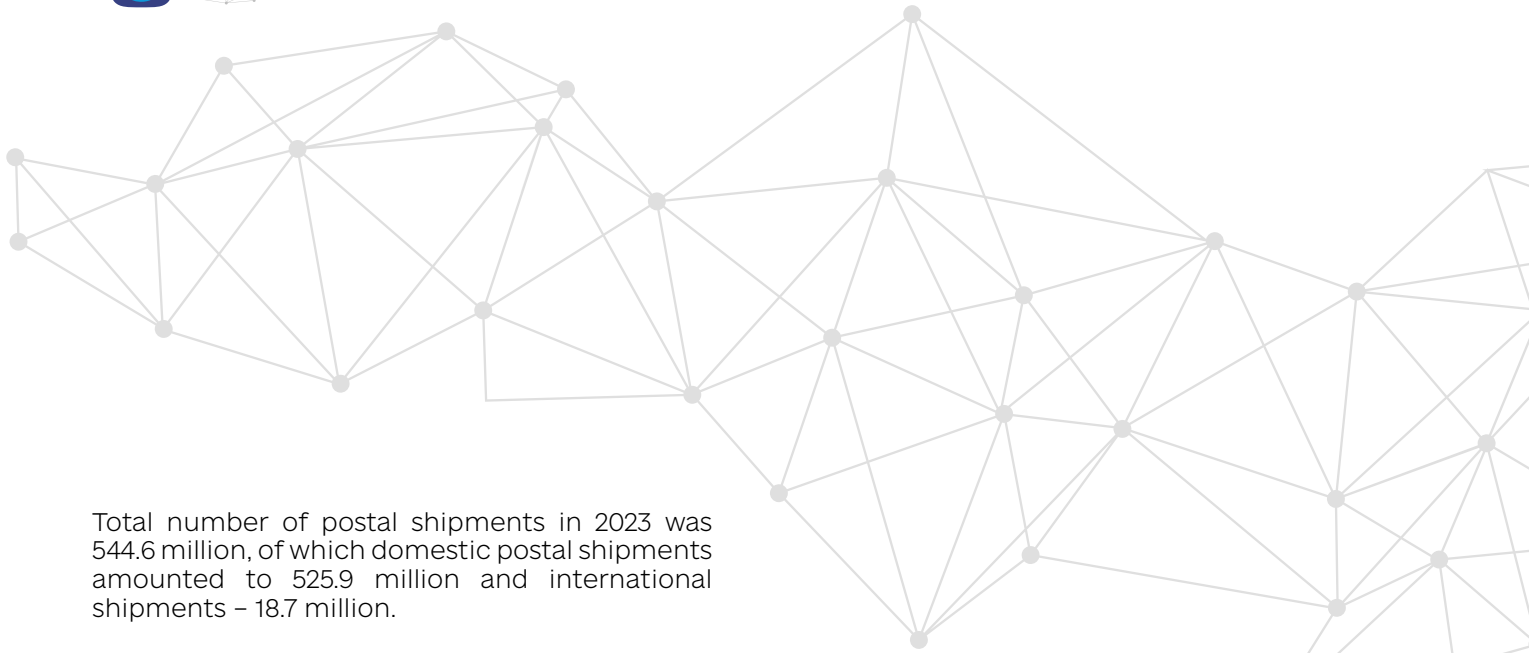


Figure 1.36



Total number of postal shipments in 2023 was 544.6 million, of which domestic postal shipments amounted to 525.9 million and international shipments – 18.7 million.

The number of postal shipments for 2023, million

The total amount is 544.6 million UAH

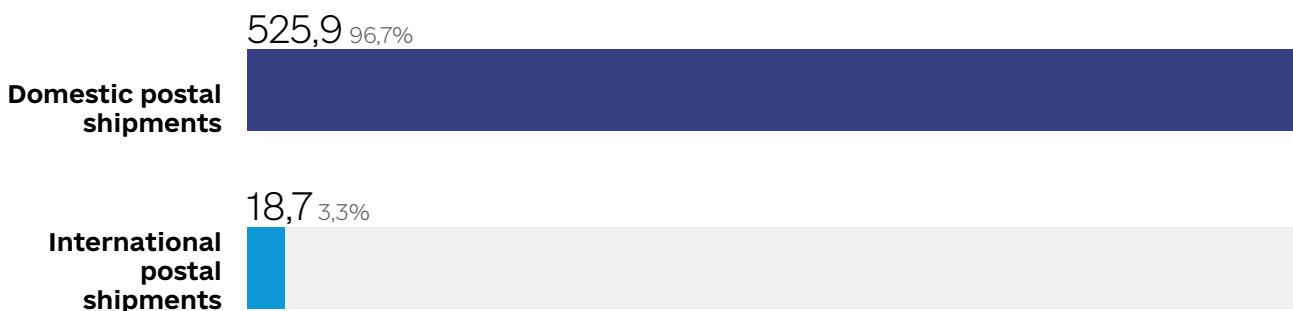


Figure 1.37

According to the results of the assessment of UPU, determined by the indicators of the designated postal operators regarding reliability, coverage, sustainability, relevance, rating of Ukraine dropped from 33rd position to 48th as a result of ongoing full-scale armed aggression of Russian Federation against Ukraine.

Postal Index 2IPD (Integrated Index for Postal Development)

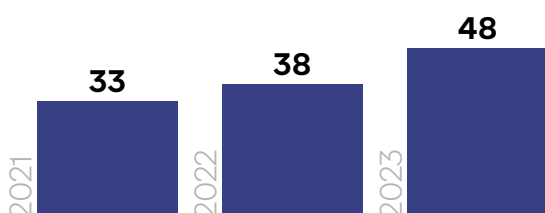


Figure 1.38

Postal operators suffered significant financial, infrastructural and human losses. Thus, according to the information from the largest operators of postal communications (JSC "Ukrposhta", LLC "Nova Post", "Meest Post", "DELIVERI" LLC) regarding the destruction/damage of the postal infrastructure and/or general property losses of operators from the beginning of the full-scale invasion of the Russian Federation on the territory of Ukraine the total losses in the monetary equivalent as of December 2023 will reach up to more than 9.9 billion UAH, considering destroyed/damaged property with more than 3.1 thousand items.

But despite significant losses, postal operators of Ukraine were able to provide the population with available postal and courier services. So, for example, only the designated operator JSC "Ukrposhta" lost control over 12% of its post offices. In particular, 1,338 objects (post offices, sorting centers, transport hubs, etc.) were not available for operations on the temporarily occupied territories of Luhansk, Donetsk, Kherson and Zaporizhzhia regions. Work of the designated operator was carried out with using 6,129 stationary post offices and 1,885 mobile post offices. In order to provide access to postal and financial services to people living in remote areas mobile post offices were used.

During 2022-2023, postal operators provided stable logistical support for the delivery of humanitarian aid and essential goods. It should be noted that the world community actively helps Ukraine. UPU Council approved the resolution "Providing assistance and support

to Ukraine and its postal sector", within which, through the Emergency Fund Solidarity (ESF) project was launched in support for destroyed/damaged postal infrastructure to the designated postal operator JSC "Ukrposhta". Accordingly, 12 designated operators of the countries: Australia, Denmark/Sweden, Estonia, Finland, France, Germany, Ireland, Japan, Luxembourg, Norway, Portugal, Slovenia waived shipments postage fees to Ukraine, 15 designated operators of the countries: Austria, Armenia, Cyprus, the Czech Republic, Estonia, Georgia, Gibraltar, Guernsey, Hungary, Ireland, Jersey, Norway, Poland, Slovakia and Slovenia delivered parcels to Ukraine for free. Within the framework of the specified project the necessary equipment for JSC "Ukrposhta" was provided with a total cost of about 400 thousand Swiss francs.

Priority areas of NCEC activity in the field of providing postal services in 2024 are:

1. Development of legislation in the field of postal services provision, primarily:
 - improvement of the Law on Post and others normative legal acts by making them compliant with Directive 97/67/EU;
 - development of the project for the national development strategy regarding postal services provision together with the Ministry of Infrastructure;
 - participation in the implementation of the Regulation of the European Parliament and Council (EU) 2018/644 on cross-border parcels delivery services and the Implementing Regulation of the Commission (EU) 2018/1263 on establishing the form for submission of information by parcel delivery services providers;
 - preparation of proposals for improvement mechanism of state supervision (control) in the field of postal services provision according to the results of scheduled inspections of postal operators in 2024;
 - development and implementation of the mechanism that monitors the quality of universal postal services provision.
2. Strengthening cooperation with ERGP regarding admission of Ukraine to the "internal market regime" for postal services.
3. Strengthening operators' interaction, including the designated operators with private postal operators communication, as well as their interaction with NCEC and Ministry of Infrastructure, including the organization and holding the next international conference on problematic issues of postal communication service provision development in Ukraine in 2024, educational and other communicative activities.
4. Ensuring completeness, relevance and reliability of information in the Register of postal communication and in reporting which is submitted by postal operators to NCEC, including necessary consulting assistance provided for postal operators.
5. Increasing the efficiency of communications with users of postal services and postal operators, with the aim of maximum satisfaction of users needs and a significant decrease of their claims.
6. Creation and implementation of automated reporting systems of postal operators, as a component of NCEC's ERP.



Postal operators
suffered losses
for an amount over

9,9
billion
UAH



2

SECTION

USAGE OF RADIO FREQUENCY SPECTRUM AND ELECTRONIC COMMUNICATIONS RESOURCES

DISTRIBUTION AND USE OF THE RADIO FREQUENCY SPECTRUM

Use of the radio frequency spectrum is carried out in accordance with the established rules and standards to ensure effective and uninterrupted functioning of various radio systems and services in Ukraine.

In view of this, and also considering the part 1, the paragraph 8¹ of final and transitional provisions of the Law on EC regarding the possibility of automatic and free extension of the term of licenses validity for radio frequency spectrum use for the period of martial law in Ukraine, introduced by the Decree on the introduction of martial law in Ukraine, and within six months from its termination or cancellation date, in 2023 NCEC has extended the validity of 202 licenses for the radio frequency spectrum.

For the purpose of determining the amount of the fee for issuing and reissuance of radio frequency spectrum licenses and launching the mechanism of their issuance in accordance with the Law on EC, NCEC has developed and submitted to the CMU the proposals for the amount of the fee for issuance, reissuance and extension of licenses validity period that were approved by the relevant resolution of the CMU dated 02.05.2023 No. 433.

In addition, in order to provide an opportunity for the international organizations that are in Ukraine to use radio frequency spectrum for the performance of their duties, by the appeal of the UNO's Office





NCEC has developed a draft resolution of the CMU "On performing changes to the Terms of radio frequency spectrum usage for the needs of diplomatic missions, consular offices institutions of foreign states, international organizations representative offices in Ukraine and military formations of foreign countries that are temporarily located on the territory of Ukraine, as well as for the needs of foreign legal entities during their coverage of sport, cultural and other events in Ukraine", approved by the CMU on May 30, 2023 under No. 542.

To fulfill the norms of the Law on EC, NCEC has developed the criteria for defining general usage of frequencies and radio technologies, for which rights of the radio frequency spectrum (its part) use are transferred from one electronic communications operator to others that have been approved by the resolution of NCEC dated 07.06.2023 No. 223. Such practice has already been implemented in the EU member states, and from now on it will help to satisfy the needs of Ukrainian radio frequency spectrum users in additional spectrum for the quality services provision, which on its own in turn will contribute to increasing efficiency of the radio frequency spectrum use and simplify access to a scarce resource.

IMPLEMENTATION OF NEW RADIO TECHNOLOGIES

Implementation of new radio technologies in the modern information environment is a key step in the development of wireless communications and the use of radio frequency spectrum. NCEC and UCRF experts developed and introduced a number of recommendations to the new Plan on distribution and use of radio frequency spectrum in Ukraine (hereinafter referred to as the Plan), which was approved by the Resolution of the CMU dated 19.12.2023 No. 1340 (upon the request of the Digital Ministry). New Plan includes spectrum reallocation for different types of radio communication, including global trends in the development of radio technologies and approximation to the European standards, and makes it possible to issue new licenses for the use of radio frequency spectrum to electronic communications operators for the development of new networks, new radio technologies implementation and quality improvement while providing services to subscribers. Adoption of the Plan reflects a strategic approach to effective use of radio frequency spectrum in the context of modern international standards, promoting development and innovation of wireless communications in Ukraine.

Taking into account the regulators' experience of the EU member states regarding the determination of indicators of radio frequencies

accumulation applied to different radio frequency range, as well as the existing amount of available spectrum in each of radio frequency ranges of Ukraine, NCEC has also developed spectrum accumulation indicators intended for exclusive use (L01) for mobile communication radio technologies in various radio frequency range. The specified indicators are a tool for ensuring effective competition and prevention of its distortion and will be taken into account by NCEC when making certain decisions, caring out the relevant tender and auctions.

In order to enable electronic communications operators further implementation of modern mobile communication radio technologies, by the resolution of NCEC Order No. 250 dated 14.12.2022 on conducting a tender or auction on obtaining licenses for radio frequency spectrum use was approved.

Approval of this Order, as well as of the abovementioned Plan, allowed NCEC to start preparation for the competitions and auctions for obtaining licenses for the use of the radio frequency spectrum in free perspective ranges of radio frequencies.





USAGE OF RADIO EQUIPMENT

During 2023, NCEC:

- registered 63 new types of radio equipment, as required by Technical regulation on radio equipment;
- registered 5 new manufacturers of radio equipment (the total number of manufacturers in the Register of RE and RD was 69 by the end of 2023);
- the possibility of using 37 types radio equipment is defined on the territory of Ukraine with appropriate conditions for each type of radio equipment.

NCEC and UCRF specialists in close cooperation with the amateur radio community developed the new Regulations for amateur radio communication in Ukraine, which was approved by NCEC resolution dated 10.05.2023 No. 173. The specified Regulation meets most European standards. Radio amateurs can get new operational documents of the European standard for their radio stations and worthy defend the honor of our state on international competitions of all levels.

ALLOCATION AND USAGE OF NUMBERING RESOURCES

Primary allocation of numbering resources is carried out by NCEC on a permissive and paid basis by providing administrative services, re-registration services, extension and cancellation permissions to use numbering resources, as well as ensuring transmission of rights to use the numbering resource or temporary provision of rights to other network and service providers.

In order to ensure operational acceptance and comprehensive processing of appeals from citizens on socio-economic, legal and humanitarian issues in the conditions full-scale invasion of the Russian Federation on the territory of Ukraine, during 2023 by NCEC decisions the free permits for use of four abbreviated numbers for the organization of information and reference social services were issued, namely:

Registered

63

new
types

of radio equipment

Registered

5

new
manufactures

of radio
equipment

37

types

of radio
equipment



- **«1512»** – "24-hour hotline" for questions regarding the rights of military personnel and their family members" for use on territory of Ukraine. Customer and supplier of services – state institution "Government contact center", which provides functioning of the National System of citizens' appeals to executive authorities in round-the-clock mode;
- **«1548»** – "Proper organization of work with population on evacuation issues, infrastructure damage and settlement of others crisis situations caused by the military invasion of the aggressor state" for use on the territory of Ukraine. The service provider is the state enterprise "Reintegration and recovery";
- **«1698»** – "Hotline of the Ministry of Internal Affairs of Ukraine and Commissioner for issues with persons missing under special circumstances" for the use on the territory of Ukraine. Customer and service provider – contact center of the Ministry of Internal Affairs of Ukraine;
- **«1684»** – "24-hour helpline of Lviv Regional Military Service administration on internal issues regarding relocated persons, housing and communal services and activities of executive authority "Hotline of the region" for use on the territory of Lviv region. Customer and service provider – budgetary institution "Lviv regional contact center".

To ensure gradual implementation and functioning of the emergency service "System of emergency assistance to the population with a single phone number 112" NCEC provided to the state institution "Center for infrastructure and technologies of the Ministry of Internal Affairs of Ukraine" permission to use abbreviated number "112" on the territory of Ukraine, as technological user.

As a result of decisions made by three service providers to stop their provision of the interpersonal communications services using numbering, NCEC performed a set of measures aimed at further organizational support for providing services to consumers with saving their numbers. Thus, according to the processing results of 5 messages from numbering resources users the rights of use for 140 thousand numbers of local telephone networks were transferred as well as three SCS-



7 codes were also transferred to other service providers that provide continuous services to 16,400 consumers in cities Poltava and Kharkiv. These measures have not only helped subscribers with a smooth transition from providers that have stopped their activity, to other providers, but also guaranteed the uninterrupted provision of private communications services using existing subscriber numbers, including access to emergency services.

In fulfillment of the part 2 paragraph 8¹ of Final and transitional provisions of the Law on EC the validity period of 98 numbering resource permits was automatically extended for the period of martial law in Ukraine, that was introduced by the Decree on Introduction of martial law in Ukraine. This allowed 43 network/

service providers to continue providing services using 193 thousand geographic numbers, one code of fixed line destination network with capacity of 1 million non-geographical numbers, 42 SCS-7 codes, three service codes of choosing an alternative long-distance or international telephone network, one code for operator of the global service 800 "Call on the account of the called subscriber".

In general, as of 31.12.2023, rights to use the numbering resources of electronic communication networks were implemented on the basis of 1,271 permits provided to 214 users, 209 of them are network and service providers, 5 – technological users (in 2022 – there were 209 numbering resource users).

The types of numbering resource and the amount of numbering resource users that have permits for usage, as of 31.12.2023

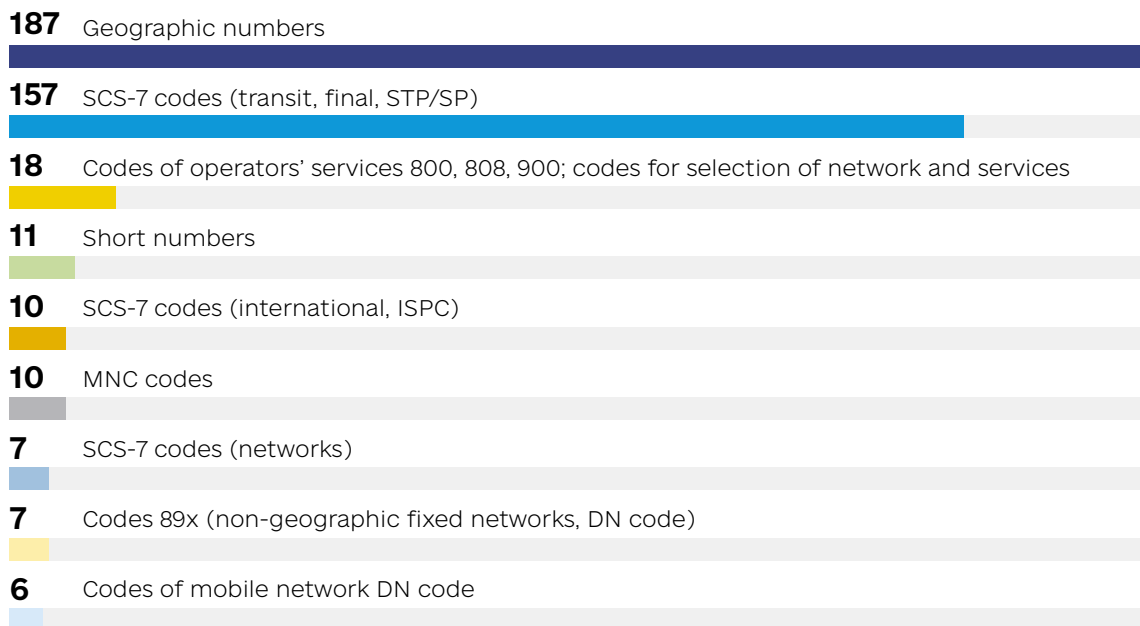


Figure 2.1

In order to improve the national numbering system and create favorable conditions for the further development of electronic communication networks, implement modern and promising electronic communication services, satisfy growing needs of service providers in limited numbering resources the new National Numbering Plan of Ukraine was accepted and approved by the Order of the SSSCIP dated 26.08.2023 No. 758 and registered in Ministry of Justice 31.08.2023 under No. 1534/40590 (effective date 02.11.2023). To the development of the Plan NCEC experts were actively involved the during 2018-2023.

3 SECTION

STATE SUPERVISION (CONTROL) IN THE FIELDS OF ELECTRONIC COMMUNICATIONS, RADIO FREQUENCY SPECTRUM AND PROVISION OF POSTAL SERVICES

EXERCISE OF STATE SUPERVISION (CONTROL) IN THE FIELDS OF ELECTRONIC COMMUNICATIONS, RADIO FREQUENCY SPECTRUM AND PROVISION OF POSTAL SERVICES

In 2023, the main directions of NCEC regarding state supervision (control) in the spheres of electronic communications, radio frequency spectrum and provision of postal services, were focused on:

- execution of oversight for implementation status of requirements for network/service providers, determined in the Decision of the National Security and Defense Council of Ukraine from 26.11.2022, put into effect by the Presidential Decree dated November 26, 2022 No. 802/2022 "On provision of electronic communications services under martial law";
- overseeing the implementation of the NCM orders on restricting the access of Internet users to resources/services specified in the respective decisions of the NCM, which entered into force according to the procedure established by law;
- conducting unscheduled inspections in order to protect the rights of services end users and eliminate the detected violations;
- taking measures to stop work of illegally operating radio equipment and eliminate radio interference sources in the public radio frequency according to the law.

Measures of state supervision (control) were carried out taking into account the resolution of the CMU dated 13.03.2022 No. 303 "On termination of state supervision (control) measures and state market monitoring under martial law".

To check readiness for provision of electronic communication services on the objects identified according to the information, provided by relevant regional and Kyiv state administrations, by orders of the NCM, taking into account possible lack of power supply on such objects for at least three days, 18 unscheduled inspections (including for the purpose of checking implementation of NCEC administrative documents) providers mobile communication services were carried out, namely:

- PJSC "VF Ukraine" – in Kyivskyi, Lvivskyi, Odeskyi, Dnipropetrovskyi, Zhytomyrskyi, Ivano-Frankivskyi and Mykolayivskyi regions;
- PJSC "Kyivstar" – in Kyivskyi, Lvivskyi, Odeskyi, Vinnytskyi, Kharkivskyi and Khmelnytskyi regions;
- "lifecell" LLC – in Kyivskyi, Lvivskyi, Odeskyi, Rivnenskyi, Chernihivskyi, Sumskyi and Poltavskyi regions.

The analysis of the inspections' results shows the fulfillment of the requirements of the NCM orders, issued taking into account the requirements of the Decision of the National Security Council, put into effect by the Decree of the President of Ukraine dated 26.11.2022 No. 802/2022, in Lvivskyi and Odeskyi (PJSC "Kyivstar", PJSC "VF Ukraine", LLC "Lifecell"), Kyivskyi (PJSC "VF Ukraine", TOV "Lifecell"), Vinnytskyi (PJSC "Kyivstar"), Zhytomyrskyi and Dnipropetrovskyi (PJSC "VF Ukraine") regions.



Unscheduled inspections in the field of postal services provision were not carried out due to the lack of applicable decisions of the Ministry of Infrastructure after the requests, made by NCEC, about conducting such checks taking into account the resolution of the CMU.

In general, 44 unplanned compliance checks were held by the authorized representatives of NCEC officials during 2023 regarding network/service providers, radio frequency spectrum users that fall under the legislation on electronic communications and radio frequency spectrum.

Accordingly, for the purpose of eliminating violations discovered during inspections 19 documents were issued. NCEC also made a decision on issuing 4 orders on elimination of identified violations of legislation on electronic communications and radio frequency spectrum, 2 decisions about extension of the correction period specified in instructions on the elimination of violations of legislation on electronic communications and radio frequency spectrum as well as 2 decisions about application of administrative and economic sanctions on the total amount of 85,000 UAH.



Generalized information on violations detected in 2023 is given in Table 3.1

The number of detected violations in 2023

Number of cases	Types of violations	Number of detected violations	The percentage of detected violations, %
1	Non-fulfillment of the NCM order requirements	20	71,4
2	Non-execution of NCEC administrative document (order or instruction) on elimination of violations of the legislation on electronic communications and radio frequency spectrum	4	14,3
3	Violation of law regarding the order on termination of electronic communication services provision to the end users	2	7,1
4	Violation of the procedure for providing numbers' porting services	1	3,6
5	Violation of the legislation requirements regarding operation of radio equipment	1	3,6
	Total:	28	100

Table 3.1

In order to take measures to terminate operation of the IRE and elimination of the effects of radio interference sources in public radio frequency bands, NCEC authorized officials together with the representatives of the National Police of Ukraine and UCRF in 2023 carried out 260 joint activities, based on the results of which the work of 214 IREs has been suspended.

In addition, in order to establish the radio equipment owners that creates harmful radio interference, and to eliminate legislation violations in the field of radio frequency spectrum use, NCEC has submitted corresponding requests to the owners of real estate objects, local authorities, as well as warning letters to the owners of radio equipment, according to the results of which 58 IREs have been suspended.

Taking into account the detected violations in the field of the radio frequency spectrum, NCEC authorized officials drew up 2 protocols on administrative offenses for Article 146 of the Administrative Code of Ukraine.

For testing and others technical procedures during 21 event of state supervision (control) technical means and specialists of UCRF were involved.

In accordance with the defined powers NCEC ensured the radio frequency monitoring, performed measures to identify radio interference sources in general radio frequency bands usage, as well as implement measures related to their elimination.

For radio frequency monitoring of the radio frequency spectrum use, as one of the important tasks of UCRF activities, the organisation took the necessary measures to increase its efficiency and improve as required nowadays.

For this purpose, UCRF continues introduction of a modernized approach to radio frequency monitoring with hardware and software means of the sensor network that allows it to monitor readiness of radio frequency bands for implementation of perspective radio technologies, as well as delivery of the economic contracts in accordance with UCRF obligations to network operators.

Development of data parameters sensor network collection of RE radiation continues. In addition to the built sensor complexes in 2023 the segments of the sensor network are deployed in the cities of Dnipro and Odesa, which since 27.11.2023 are in the test operation. For the purpose of



hardware and software improvement of the sensor networks and to reduce human impact factor in the processing of the collected data sensory complexes, mechanisms for automated detection of changes in electromagnetic environment were developed.

In addition, the modernization of 59 mobile radio monitoring stations (MRMS) RM-1300-R4 was completed by installation and integration of the TSME6 scanner for expansion of radio frequency monitoring functionality of mobile connection RE. In general, as of 31.12.2023 in UCRF there are 77 MRMS of the new generation.

As of 31.12.2023, AISURS UCRF has approximately 200 thousand assignments of radio frequencies that were subject to radio frequency monitoring. The biggest increase in the reporting year was due to development of mobile communication networks (growth the number of radio frequency assignments by 17%).

During the implementation of radio frequency monitoring in 2023 was carried out approximately 3 million definitions of electromagnetic parameters in RE radiation.

Considerable work was aimed at IRE detection and detection of radio interference.

Dynamics of the conducted parameter measurements of electromagnetic radiation RE in 2021-2023, million

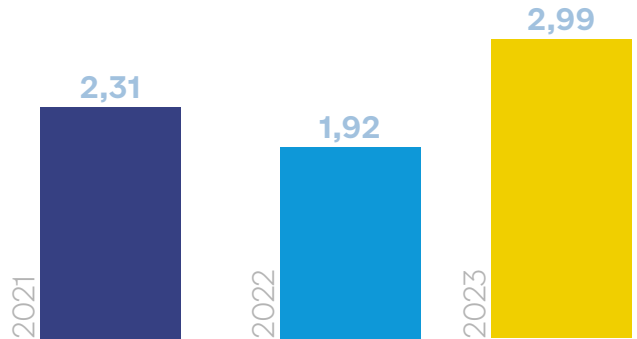


Figure 3.1

As of 01.01.2023, the UCRF registered 5,070 violations in the field use of the radio frequency spectrum. During 2023, 4,786 violations were registered (as of 31.12.2023), namely:

- use of RE without assignment radio frequencies – 3,527;
- use of RE with violation of operation parameters – 1,259.



Dynamics of the identified IREs in 2021-2023

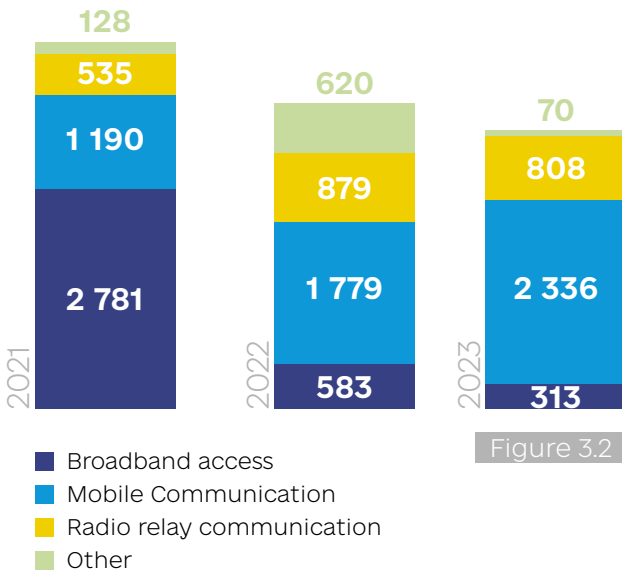


Figure 3.2

During 2023 6,137 violations of the use of the radio frequency spectrum were eliminated, which is 62% of the total violations number.

At the end of the reporting year, violations 3,719 remained unresolved. Most violations (68%) are related to the use of mobile communications RE.

A significant number of outstanding violations connected with the martial law introduced by Decree on the introduction of martial law in Ukraine, and the adoption of the Law of Ukraine on 03.05.2022 "On Amendments to the Law of Ukraine "On Electronic Communications" on increasing the efficiency of the organization work of network/service providers under martial law" No. 2240-IX, according to which network / services providers are allowed to use radio and radiating equipment devices, including those imported from abroad, without complying with

the requirements prescribed by Chapter X of the Law on EC, provided they ensure electromagnetic compatibility.

During 2023, the UCRF processed 325 applications for detection of radio interference sources. Reduction in the number of applications for the detection of radio interference sources is related to the legislation change in the field of electronics communications and radio frequency spectrum.

Effective restrictions in 2023 are set by the resolution of the CMU "On termination of state supervision (control) measures and state market monitoring under martial law" dated 13.03.2022 No. 303, limited NCEC's possibilities to promptly respond on violations of legislation in the electronic communications, radio frequency spectrum and provision of postal services spheres.

However, NCEC will continue the implementation of initiatives aimed to increase the efficiency of the state supervision (control) in 2024.

Dynamics of the number of processed applications to identify radio interference sources in 2021-2023

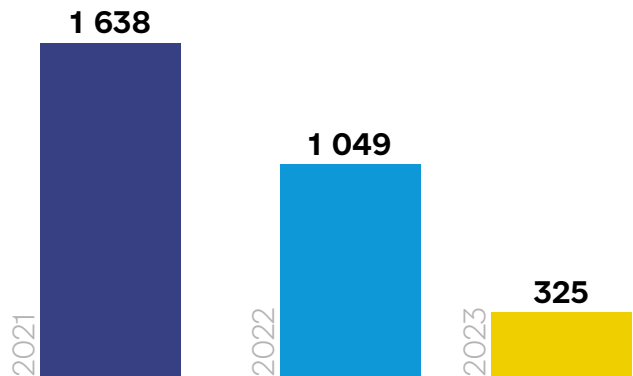


Figure 3.3



ELECTRONIC COMMUNICATION SERVICES QUALITY PROVISION

Ensuring the protection of rights and legal consumer interests regarding accessibility and receiving electronic communications services of proper quality is one of the NCEC priorities.

Accordingly, NCEC continues to improve existing conditions and create favorable organizational and legal ones, and also takes measures to meet consumer demand to receive electronic services communications of appropriate quality in accordance with legislation in the field of electronics communications and taking into account:

- Decree of the President of Ukraine dated 26.11.2022 No. 802/2022 "On the decision of the National Council of Security and Defense of Ukraine dated 26.11.2022 "On the provision of electronic communication services in conditions of martial law" on provision of state supervision (control) measures regarding the network/service providers compliance with indicators and quality parameters of electronic communication services in the conditions of martial law.
- Programs of activity of the CMU, approved by the corresponding resolution dated 12.06.2020 No. 471. The section "Long-term priorities of the Government" in particular, determined that priority measures are: development of Internet access, creating conditions for mobile technologies of the fourth and fifth generations; providing social infrastructure institutions, bodies of local government and citizens with access to high-speed Internet.
- National economic strategy for the period until 2030, which was approved by the CMU's resolution dated 03.03.2021 No. 179. The strategic course of digital economy assumes that one of the ways to achieve the goal "Acceleration of economic activity" is to increase level of mobile and fixed Internet coverage. A challenges and a barriers in reaching the goal, in particular, are: low level of technology penetration and general computerization, insufficient level of fixed and mobile Internet coverage; problems with 3G and 4G coverage of highways.



14

international
highways

need

269

base
stations

One of the key areas for NCEC was ensuring the quality of the mobile connection on main highways. Starting from 2022, as a result of the joint work of NCEC, the Digital Ministry and providers of mobile communication, 14 key international highways were determined as those that have a special national significance in passenger flow and freight transportation taking into account hostilities, and need development – 269 base stations of mobile communication. Implementation of measures to improve the quality of communication on the highways of Ukraine was extended in 2023.

For this purpose, NCEC carried out measures and consolidated efforts of electronic communications market participants and contributed to the process of the allocation consideration to land mobile communication service providers plots on the territory of forestry for the construction of base stations and initiated the simplification mechanisms and procedures for obtaining by operators the rights to land plots for the placement of electronic communications technical installations, including construction of electronic communications facilities along main highways of Ukraine. Also, NCEC together with Digital ministry carried out organizational measures for mobile communication providers to obtain by land plots that are connected and in use of State specialized enterprise "Forests of Ukraine".

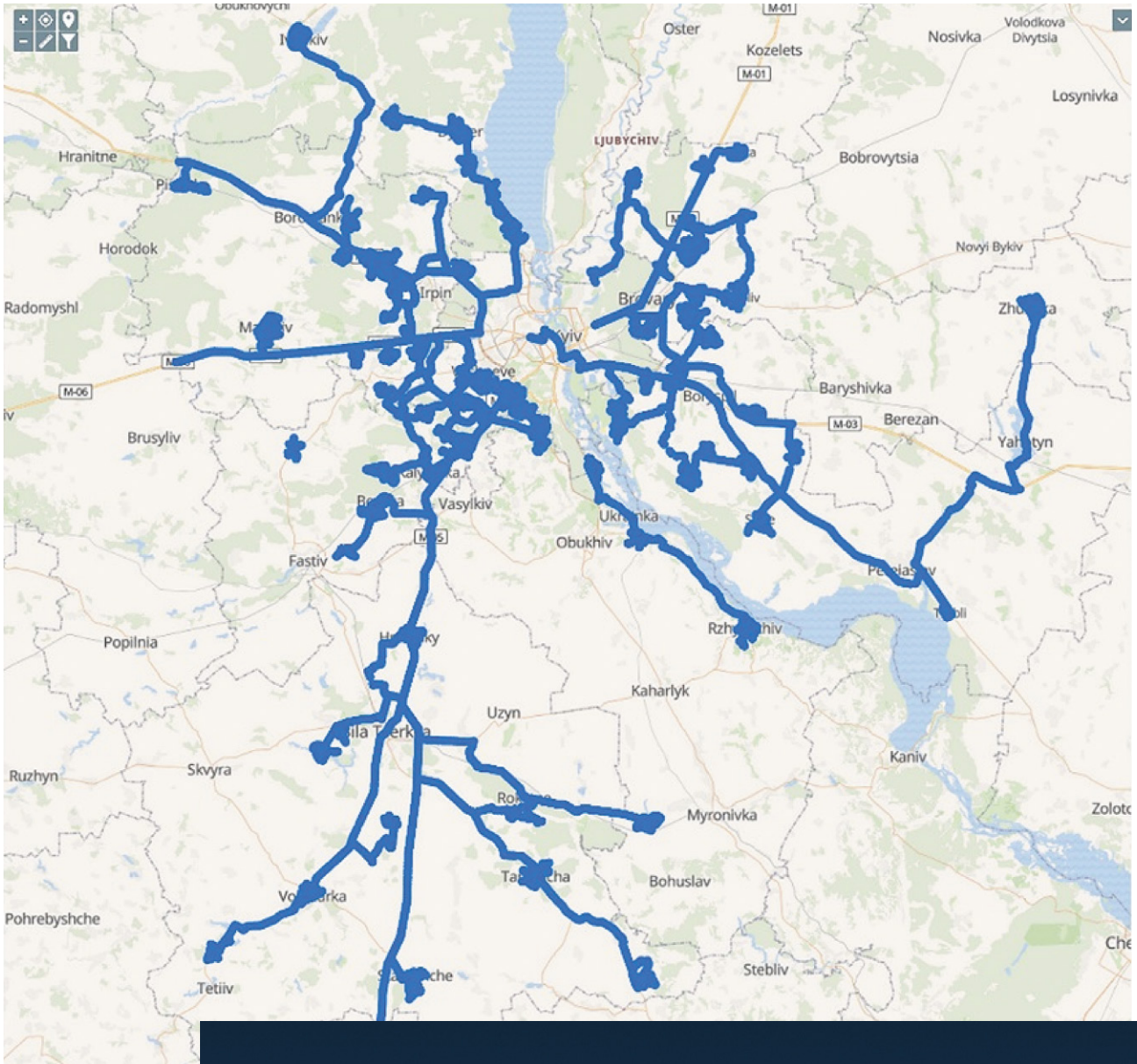
According to the result of implementation quality improvement measures along international highways of Ukraine by the end of 2023 were built in designated locations and started working –

148 base
stations

The quality monitoring continued to be carried out during the year on mobile communication service providers' networks.

Thus, in compliance with the order of the CMU dated 30.09.2020 No. 1189 "On approval of the plan of measures regarding improving the quality of mobile services of communication in 2020-2022" in UCRF on NCEC's request, a subsystem for monitoring and collecting of the quality parameters of GSM-900/1800 digital cellular radio communication services, IMT-2000 (UMTS) and international mobile of communication IMT was introduced, which is a part of nationwide continuous system that is monitoring the quality of digital cellular radio communication services GSM-900/1800, IMT-2000 (UMTS) and of international mobile communication IMT and access to the Internet.





In 2023, monitoring of mobile communication services quality was carried out by means of conducting drive tests on the territory of **1,188** settlements with a population varying from 2 to 10 thousand people (taking into account 2 detours) and **26** international highways, twice during the year. Total length of drive tests routes reached **156,402** km. In populated areas and on highways between them have been completed more than **130 thousand** test sessions for individual indicators of the mobile communication services quality.

The number of settlements by region, where quality monitoring was carried out, unit

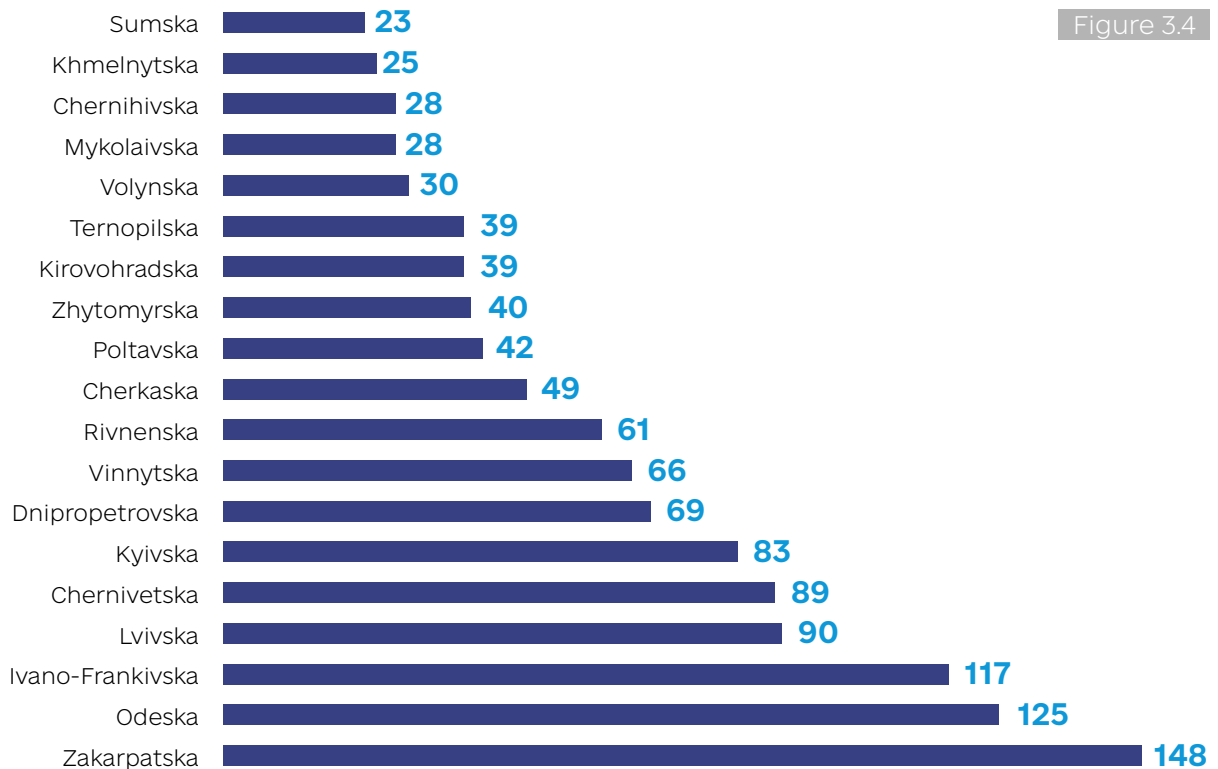


Figure 3.4

The results of quality monitoring: show that the averaged speed indicators for mobile communication internet network access (with 95% reliability from the calculations) in the settlements with the population from 2 to 10 thousand people are:

download – 32.8 Mbit/s,
upload – 21.1 Mbit/s,

on international highways:

download – 24.9 Mbit/s,
upload – 18.2 Mbit/s.

According to the results of the monitoring, it was established that all service providers meet the established levels for most of the indicators, excluding the "Percentage of calls, that meets the requirements of time for establishing a connection, for national calls" and "Percentage of connections that meet the standards of the quality of voice transmission, for assessment methods POLQA".

Thus, connection time for national calls is established at a level of no more than 10 seconds. The main reason for the discrepancy of the "establishment of connection for national calls" indicator is spending time on transition of the mobile terminal between radio technologies when establishing a connection, which is set to 10 seconds.

Transition between radio technologies takes place on the mobile terminal that initiates the call and on mobile terminal that accepts the call. Additional time, which is spent on the transfer between radio technologies, leads to the increase of time in establishing connections.



Implementing VoLTE mobile communication technology for provision of voice telephony services by network providers has significantly improved the values of given indicators.

Generalized materials on the condition of the mobile communication networks coverage and indicators the electronic communication services quality in mobile communication networks were systematically provided by NCEC to networks providers in order to use the monitoring results to ensure reliable mobile communication, identifying problematic sections of highways and in populated areas, and planning the development of networks. On individual requests of providers an additional extended low-level information (log files of test sessions) was provided on separate problem areas of monitoring. It should be noted that quality monitoring of electronic communication services in 2023 provided by NCEC and networks providers with information about the current state of quality and electronic communication services availability on mobile communication networks and aids improving the quality of providing such services.

Quality monitoring has allowed to identify and eliminate problem areas that arose as a result of damage and destruction of electronic infrastructure communication networks caused by the military aggression of the Russian

Federation and forced population migration, its accumulation in separate regions and at the state border.

To implement the procedure for monitoring the quality of electronic communications services for the purpose of openness of the process planning and organization of implementation monitoring, by the decision of NCEC dated 08.12.2023 Implementation Plan on electronic quality monitoring communication services in 2024 Order No. 464 was approved. Thus, the main purpose of carrying out monitoring activities in 2024 is to define the real the state of compliance with the levels of mobile communication services quality indicators, provision of providers of electronic communication services with information on electronic communication services availability and the existing level of their quality at the specified Plan on the territory of Ukraine in military conditions and protection of the rights of end users regarding receiving mobile communication services of appropriate quality in accordance with the legislation requirements.

NCEC in 2024 and in the future consistently and carefully plans to direct its work on efforts aimed on electronic communication services accessibility to all the population of Ukraine, as well as their increase in quality regardless of challenges and difficulties, related to the martial law in Ukraine.

4 SECTION

REGULATORY AND LEGAL REGULATION OF NCEC

During 2023, NCEC continued to actively work on the development of projects of normative legal acts aimed at implementation and practical application of the provisions of the Law on EC, the Law on NCEC and the Law on Post.

For this purpose, as well as complying with basic principles of the Commission's activity on ensuring predictability and timeliness of decision-making, openness, transparency and visibility of the state process regulation, predictability, informing the public about its plans and results work, creation of conditions for public participation in the development of regulatory projects acts, the by the decision of NCEC dated 14.12.2022 No. 257 the Action Plan on preparation of projects of normative legal acts of NCEC was approved, which have parameters of regulatory acts for 2023 and the Action Plan for the preparation of NCEC projects regulatory acts for CMU in 2023, which foresaw the development of 40 draft acts of NCEC and 3 draft acts of the CMU.

Adhering to the requirements of Article 15 of the Law on NCEC every developed project of a normative legal act that had the characteristics of a regulatory act, together with the supporting materials that explained the need for its adoption and analysis of regulatory influence was made public on the official website of NCEC for the purpose of conducting consultations, receiving comments and proposals from individuals and legal entities, their associations and other interested parties.

All comments and suggestions received to projects of normative legal acts were reviewed by NCEC, and in the future, according to the results of the work carried out according to the procedure established by the Commission, 34 normative legal acts were adopted, passed the state registration procedure in the Ministry of Justice, which is 42% more than in 2022 (24 resolutions of NCEC passed the state registration procedure in 2022).

Appropriate decisions were made with consideration of the plans of the CMU for preparation of draft acts and other tasks necessary to provide implementation of the Law on EC, the Law on NCEC, and Law on Post. NCEC has continuously informed CMU and Committee of the Supreme Council of Ukraine regarding digital transformation and the results.

Dynamics of the number of accepted NCEC by-laws that have passed the state registration procedure in the Ministry of Justice in 2022-2023

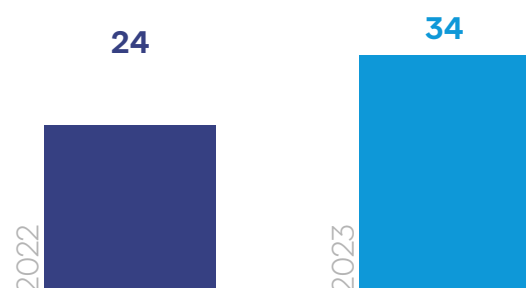


Figure 4.1





The list of by-laws of the NCEC, which passed state registration procedures in 2023

<p>Resolution of NCEC dated 11.01.2023 No. 8 "On making changes to the Register Maintenance Procedure licenses for the use of radio frequency spectrum", registered in the Ministry of Justice on January 26, 2023 under No. 170/39226.</p>	<p>The resolution was adopted for the purpose of providing fulfillment of the requirements of the Law of Ukraine dated 16.08. 2022 No. 2529-IX of "On Amendments to some laws of Ukraine regarding management improvement in the field of electronic communications" in terms of the need for ministries and other central executive authorities to harmonize their by-laws in accordance with this Law.</p>
<p>Resolution of NCEC 01.02.2023 No. 37 "On approval of the Order of imposing on electronic communication networks or electronic communication services providers with a significant market share impact on wholesale and/or retail markets the regulatory obligations, their change and withdrawal", registered in the Ministry of Justice on 09.03.2023 under No. 427/39483.</p>	<p>The resolution was adopted for the purpose of establishing organizational principles and procedures by NCEC for preliminary regulation of the certain services on the market for the purpose of ensuring economic competition development in electronic communication networks and/or services markets by imposing, changing and removing (cancellation) of regulatory obligations, provided for by the Law on EC.</p>
<p>Resolution of NCEC dated 08.03.2023 No. 89 "On approval of the Procedure for mutual settlements between providers of electronic communication networks and/or services (operators) for private electronic communications services using numbering", registered in Ministry of Justice 23.03.2023 under No. 501/39557.</p>	<p>The resolution was adopted for the purpose of defining terms of mutual settlements between network/service providers (operators) after establishing connection of their electronic communication networks that function in of the electronic communication network public use.</p>
<p>Resolution of NCEC dated 29.03.2023 No. 117 "On approval of the Procedure for approval of the list of designated conformity assessment entities for radio equipment and radiation devices", registered in the Ministry of Justice on 17.05.2023 under No. 826/39882.</p>	<p>The resolution was adopted for the purpose of defining procedures for approval of the NCEC designated conformity assessment list regarding RE and RD that are subject to registration in NCEC, in accordance with the second paragraph of the first part Article 64 of the Law on EC; maintaining a list of the appointed bodies for assessment of RE conformity and RD and its publication.</p>
<p>NCEC Resolution No. 138 of 19.04.2023 "On approval of the Procedure and form of management of the single state register for operators of postal communication", registered in the Ministry of Justice 16.05.2023 under No. 816/39872.</p>	<p>The resolution was adopted for the purpose of establishing procedures for conducting a single state register of postal operators, ensuring the functioning of the mechanism to submit notices of entry information to the unified state register of postal operators.</p>
<p>NCEC Resolution No. 139 of 19.04.2023 "On approval of the Implementation Procedure for radio frequency monitoring in public radio frequencies bands ", registered in the Ministry of Justice on 08.05.2023 for No. 758/39814.</p>	<p>The resolution was adopted for the purpose of defining organizational and technical measures which are carried out by NCEC and the state enterprise in the field management, and provides systematic control over the use of radio frequency spectrum.</p>

<p>NCEC Resolution No. 146 of 26.04.2023 "On approval of the Procedure of reporting and information submission by operators of postal communication ", registered in the Ministry of Justice on 09.06.2023 for No. 962/40018.</p>	<p>The resolution was adopted for the purpose of establishing procedures for submitting to NCEC and receiving reporting and information from postal operators, including that which contains financial and economic indicators, documents and materials of their activity that is necessary for execution of NCEC's powers, in particular for monitoring prices (tariffs) (for universal regulated postal services), monitoring the quality of postal communication provision services in accordance with the established quality standards and financial information nature, for statistical and other reports.</p>
<p>Resolution of NCEC dated 10.05.2023 No. 173 "On approval of the Regulations on amateur Radio Communications of Ukraine", registered in the Ministry of Justice 29.06.2023 under No. 1106/40162.</p>	<p>The resolution was adopted for the purpose of defining the procedure for radio frequency spectrum usage in Ukraine for amateur radio communication services and amateur satellite radio communication services; general requirements to harmonized and national operational documents of the amateur radio stations; procedures and registration of call signs and operational documents; establishing the form of operational documents, as well as forms (list of necessary information) for their registration; requirements for public publication information about operational documents for amateur radio frequency services and exchange of information with owners of information resources.</p>
<p>Resolution of NCEC dated 10.05.2023 No. 175 "On approval of the Procedure for assessing the possibility of fulfilling by radio frequency spectrum users the license conditions", registered in Ministry of Justice 25.05.2023 under No. 877/39933.</p>	<p>The resolution was adopted for the purpose of defining by NCEC the evaluation procedure of feasibility by users of the radio frequency spectrum on licensing conditions defined by Article 49 of the Law on EC, after the termination or cancellation of martial law in Ukraine or some of its localities, introduced in accordance with the Law of Ukraine "On the legal regime of martial law".</p>
<p>Resolution of NCEC dated 17.05.2023 No. 189 "On approval of the Regulation Procedure and setting prices (tariffs) for postal communication services with domestic parcels and registered letters of the unannounced values (recommended) weighting up to 50 grams and postal cards", registered in the Ministry of Justice 15.06.2023 under No. 995/40051.</p>	<p>The resolution was adopted for the purpose of defining formation and implementation mechanism of marginal prices (tariffs) for postal services with the domestic parcels and registered letters without declared value (recommended) weighting up to 50 grams and postcards.</p>
<p>NCEC resolution No. 216 dated 31.05.2023 "On approval of the availability assessment Procedure criteria for extending the term of validity of the license for use of the radio frequency spectrum", registered in the Ministry of Justice on 03.07.2023 for No. 1120/40176.</p>	<p>The resolution was adopted for the purpose of defining by NCEC the evaluation procedures for the presence of criteria for extension of the validity period of the license for the radio frequency spectrum use, defined by Article 51 of the Law on EC.</p>
<p>Resolution of NCEC dated 31.05.2023 No. 218 "On approval of the Identification Procedure, definition and analysis of certain electronic communication services markets ", registered in the Ministry of Justice on 20.07.2023 for No. 1229/40285.</p>	<p>The resolution was adopted for the purpose of defining organizational and legal basis of the procedure identification, definition and analysis of wholesale and/or retail market of certain electronic communication services, definition network / service providers with significant market influence in these markets.</p>



<p>NCEC resolution No. 223 dated 07.06.2023 "On approval of the Criteria for determining bands for general use and radio technologies, for which rights of use of the radio frequency spectrum (its part) are transferred ", registered in the Ministry of Justice 23.06.2023 under No. 1050/40106.</p>	<p>The resolution was adopted for the purpose of approval of Criteria for determining general bands for radio technologies use for which transfer of usage rights is carried out for radio frequency spectrum (part of it).</p>
<p>Resolution of NCEC dated 14.06.2023 No. 237 "On approval of the regulatory reporting form for providers of electronic communication networks and services", registered in the Ministry of Justice 09.08.2023 under No. 1349/40405.</p>	<p>The resolution was adopted for the purpose of approving the regulatory reporting form for networks/services providers.</p>
<p>NCEC resolution No. 273 dated 12.07.2023 "On amending the Tariffs for works (services) of State enterprise "Ukrainian State Center of Radio Frequencies", registered in the Ministry of Justice on 28.07.2023 under No. 1274/40330.</p>	<p>The resolution was adopted for the purpose of making a change to Tariffs for works (services) of UCRF.</p>
<p>NCEC resolution No. 277 dated 12.07.2023 "On recognition as invalid the decision of the National Commission, which carries out state regulation in the field of communication and informatization dated 18.04. 2013 No. 277, registered in Ministry of Justice 27.07.2023 under No. 1263/40319.</p>	<p>The resolution was adopted for the purpose of implementation of organization plan for the preparation of draft acts and performing other tasks necessary for ensuring the implementation of the Law on NCEC, a as well as implementation of protocol No. 7 from 20.04.2023 of Meeting of the Interdepartmental Working Group that expedited review group instruments for state regulation of business activity.</p>
<p>NCEC resolution No. 314 dated 16.08.2023 "On amending the NCEC resolution No. 30 dated 20.04.2022, registered in the Ministry of Justice 30.08.2023 under No. 1525/40581.</p>	<p>The resolution was adopted for the purpose of providing an Indicative list of electronic communication services and applications regarding Annex 5 to the Procedure for maintaining the register of electronic communication networks and services providers and its forms approved by the resolution NCEC dated 20.04.2022 No. 30, registered in the Ministry of Justice on 07.05.2022 under No. 502/37838 in compliance with the norms of paragraph 7 of the second part Article 34 of the Law on EC.</p>
<p>NCEC resolution No. 321 of 23.08.2023 "On approval of the Procedure for interaction of the National the commission carrying out state regulation in the fields of electronic communications, radio frequency spectrum and provision of postal communication services, with the National Police of Ukraine", registered in the Ministry of Justice on 02.10. 2023 under No. 1723/40779.</p>	<p>The resolution was adopted for the purpose of defining the procedures of interaction between NCEC and the National of the Police of Ukraine regarding the organization and conduct of joint activities.</p>
<p>Resolution of NCEC dated 23.08.2023 No. 322 "On approval of the Procedure establishing the amounts of estimated fees for termination services of national traffic for mobile and fixed voice of communication", registered in the Ministry of Justice on 09.08.2023 under No. 1592/40648.</p>	<p>The resolution was adopted for the purpose of defining the mechanism for setting or changing size of settlement fees for national traffic termination services for mobile and fixed voice communication.</p>
<p>Resolution of NCEC dated 06.09.2023 No. 342 "On approval of the Regulation on cable ducts of electronic communications networks", registered in the Ministry of Justice on 19.10.2023 under No. 1833/40889.</p>	<p>The resolution was adopted for the purpose of establishing rules for providing and receiving access to cable ducts of electronic communication networks and rules for providing use of it.</p>

Resolution of NCEC dated 06.09.2023 No. 342 "On approval of the Regulation on cable ducts of electronic communications networks", registered in the Ministry of Justice on 19.10.2023 under No. 1833/40889.	The resolution was adopted for the purpose of establishing rules for providing and receiving access to cable ducts of electronic communication networks and rules for providing use of it.
Resolution of NCEC dated September 6, 2023 No. 344 "On approval of the Procedure for consideration of disputes between providers of electronic communication networks and/or services", registered in Ministry of Justice 09/27/2023 under No. 1700/40756.	The resolution was adopted for the purpose of establishing procedures and rules of extrajudicial consideration of NCEC, disputes arising between network/service providers.
Resolution of NCEC dated 13.09.2023 No. 350 "On approval of the Criteria for the start of usage and full development of radio frequency spectrum", registered in the Ministry of Justice on 29.09.2023 under No. 1712/40768.	The resolution was adopted for the purpose of approving Criteria for the start of use and development of the radio frequency spectrum that are taken into account when determining the terms of the license on the use of the radio frequency spectrum for the purpose of establishing the beginning of use and full development of the radio frequency spectrum and are used when evaluating the fulfillment of conditions, applicable to rights of use radio frequency spectrum.
Resolution of NCEC dated 13.09.2023 No. 352 "On approval of marginal prices (tariffs) for postal services with forwarding domestic parcels and registered letters without declared value (recommended) weight up to 50 grams and postal cards", registered in the Ministry of Justice on 28.09.2023 under No. 1719/40775.	The resolution was adopted for the purpose of approval marginal prices (tariffs) for postal services communication with the forwarding of domestic and registered letter parcels without declared value (recommended) weighting up to 50 grams and postcards.
NCEC resolution No. 358 of 20.09.2023 "On approval of the procedure for carrying out quality monitoring of electronic communication services", registered in the Ministry of Justice on 19.10.2023 for No. 1830/40886.	The resolution was adopted for the purpose of defining organizational and technical measures which carried out by UCRF and NCEC in implementation of electronic communication services quality monitoring.
Resolution of NCEC dated 20.09.2023 No. 359 "On approval of the Procedure for interaction of the National the commission carrying out the state regulation in the fields of electronic communications, radio frequency spectrum and provision of postal services, with the General Headquarters of the Armed Forces of Ukraine to eliminate the effects of radio interference sources in general radio frequency bands use for radio equipment of special users", registered in Ministry of Justice 09.10.2023 under No. 1759/40815.	The resolution was adopted for the purpose of defining procedures for the interaction of NCEC and the General headquarters of the Armed Forces of Ukraine regarding the organization and taking measures to eliminate the effects of radio interference sources detected in radio frequency bands of general use, created by RE of general users by electronic means and special purpose radiating devices and radio-electronic means and special designation RD of RE of general users.
Resolution of NCEC dated 18.10.2023 No. 391 "On approval of estimated fees for national traffic termination services for mobile and fixed voice communication", registered in the Ministry of Justice on 01.11.2023 under No. 1898/40954.	The resolution was adopted for the purpose of establishing for national traffic of the wholesale settlement charges for termination of national traffic for mobile voice communication and uniform settlement fees for termination of national traffic for fixed voice communication.
NCEC Resolution No. 398 of 25.10.2023 "On making changes to the NCEC resolution dated 29.03.2023 No. 117", registered in the Ministry of Justice on November 9, 2023 under No. 1949/41005.	The resolution was adopted for the purpose of bringing Procedure for approving the list of designated assessment bodies for radio equipment and radiation devices approved by the NCEC resolution dated 29.03.2023 No. 117, registered in the Ministry of Justice 17.05.2023 under No. 826/39882 in accordance with Law on NCEC.



<p>Resolution of NCEC dated 25.10.2023 No. 399 "On approval of changes to the Regulation Procedure and setting prices (tariffs) for postal communication services with domestic shipments and registered letters of the undeclared values (recommended) weighting up to 50 grams and postal cards", registered in the Ministry of Justice 07.11.2023 under No. 1936/40992</p>	<p>The resolution was adopted for the purpose of making changes to the Regulation and Installation Procedure prices (tariffs) for postal services from forwarding domestic shipments and registered letters without declared value (recommended) weighting up to 50 grams and postcards".</p>
<p>NCEC Resolution No. 426 of 15.11.2023 "On approval of the Regulations on distribution, use and accounting of electronic communication networks numbering resources for public use", registered in Ministry of Justice 09.01.2024 under No. 46/41391.</p>	<p>The resolution was adopted for the purpose of establishing procedures for submission of applications, notifications to the NCEC in order to obtain rights to use electronic numbering resources in general communication networks and determining the order of: management of register of resources numbering primary distribution; transfer of rights or provision of use of rights regarding the numbering resource; granting rights to use the resource numbering to technological users; interaction of technological users numbering resources and network/services providers; information on distribution issues, use and accounting of numbering resources.</p>
<p>Resolution of NCEC dated 22.11. 2023 No. 437 "On approval of the methodology and update of geographical surveys", registered in the Ministry of Justice on 03.01.2024 for No. 11/41356</p>	<p>The resolution was adopted for the purpose of defining implementation and updating mechanism of geographic surveys broadband networks access (fixed and mobile) and voice electronic communications services availability throughout territory of Ukraine in a fixed location as well as installation procedures for publishing results, carrying out and updating geographic reviews and defining a list of information, necessary for conducting and updating geographical surveys, its form and method of receiving.</p>
<p>NCEC resolution No. 453 dated 29.11.2023 "On approval of marginal prices (tariffs) for postal services with forwarding domestic shipments and registered letters without declared value (recommended) weighting up to 50 grams and postal cards", registered in the Ministry of Justice on 13.12.2023 under No. 2170/41226.</p>	<p>The resolution was adopted for the purpose of Limit prices (tariffs) approval for postal services communication with the forwarding domestic shipments and registered letters without declared value (recommended) weighting up to 50 grams and postcards".</p>
<p>Resolution of NCEC dated 27.12.2023 No. 496 "On introducing changes to the unified form of the act, filled based on the results of the implementation scheduled (unscheduled) state supervision (control) checks regarding compliance of the business entity to legislative requirements in the field of postal communication service provision " is registered with the Ministry of Justice 19.02.2024 under No. 251/41596.</p>	<p>The resolution was adopted with the aim of making changes to the unified form of the act, drawn up according to the results of the planned (unplanned) checks of state supervision (control) regarding compliance by the entity to legislative requirements in the field provision of postal services", in part bringing it into line with the current legislation.</p>
<p>Resolution of NCEC dated 27.12.2023 No. 498 "On approval of the marginal tariffs for provision in the use of cable ducts in electronic communication networks", registered in the Ministry of Justice on 12.01.2024 for No. 71/41416.</p>	<p>The resolution was adopted for the purpose of marginal tariffs approval for providing the use of cable ducts in electronic communication networks.</p>

In addition, during 2023 NCEC developed and facilitated the acceptance of two CMU resolutions by the Government

"On the amount of the fee for issuing, re-issuing, extension of licenses validity period for the use of radio frequency spectrum" dated 02.05.2023 No. 433.

The resolution was developed with a purpose of ensuring compliance with the requirements of the Law on EC in part of setting the fees for licenses issuance for the use of radio frequency spectrum.

"On amendments to the radio frequency spectrum Terms of Use for needs of diplomatic missions, consular offices institutions of foreign states, representative offices of international organizations in Ukraine and military formations of foreign countries that are temporarily located on the territory of Ukraine, as well as for the needs of foreign legal entities during their coverage of sports, cultural and other events in Ukraine" dated 30.05.2023 No. 542.

The resolution was developed with a purpose of providing the opportunity to receive special operating documents of United Nations Organization (UN) in Ukraine for the purpose of organization and implementation of measures to provide humanitarian aid.

In addition, in 2023, NCEC worked out 185 projects of normative legal acts, which were submitted in the established order for review. In particular, 117 draft Laws of Ukraine were processed, received from the committees of the Supreme Council of Ukraine in accordance with the Regulations of the Supreme Council of Ukraine, approved by the Law of Ukraine dated 10.02.2010 No. 1861-VI, and 68 projects of normative legal acts from state authorities that came for approval in accordance with the Regulations of the Cabinet of Ministers of Ukraine, approved by the resolution of the CMU dated 18.07.2007 No. 950.

Work on the development of the rest of the necessary normative legal acts aimed at implementation of the provisions of the Law on EC, the Law on NCEC and the Law on Post will be appropriately continued in the manner and in the established order in 2024.

Dynamics of the number of processed by-laws projects received by NCEC in 2022-2023

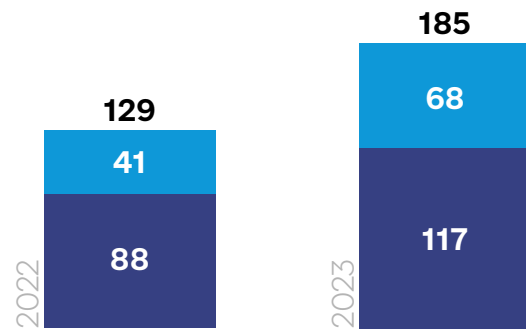


Figure 4.2

- From Supreme Council of Ukraine
- From other state authorities

Processed in total **185** by-laws

of them **117** projects laws of Ukraine, of them that came from the SCU and **68** projects of by-laws that came from state authorities



5 SECTION

EUROPEAN INTEGRATION AND INTERNATIONAL COOPERATION

IN 2023, NCEC'S ACTIVITIES IN THE DIRECTIONS OF EUROPEAN INTEGRATION AND DEVELOPMENT OF INTERNATIONAL COOPERATION WERE FOCUSED ON:

- Provision of affordable international roaming services for Ukrainians staying on the territory of the EU, and working out practical steps for Ukraine's accession to the EU roaming zone "Roam-like-at-home" (RLAH);
- Fulfillment of the tasks stipulated by the UA-EU Association Agreement and related to the integration of Ukraine to the EU Digital Single Market (EU DSM);
- Attracting international support to Ukraine and measures aimed at condemning the actions of the Russian Federation at the level of international sectoral organizations;
- Involvement of technical assistance for the restoration of electronic communication networks from consequences of full-scale armed aggression of the Russian Federation against Ukraine;
- Deepening of cooperation with European organizations and platforms, as well expansion of bilateral cooperation with regulatory bodies of foreign countries.

PROMOTING THE EXPERIENCE AND NEEDS OF THE SECTOR OF ELECTRONIC COMMUNICATIONS AT THE INTERNATIONAL LEVEL

During the year NCEC team actively used available opportunities for sharing the unique experience and reporting important information to international partners about the challenges faced by both NCEC and the field of electronic communications in the conditions full-scale armed aggression of the Russian Federation against Ukraine, industry needs for electronic communication infrastructure recovery, the need to condemn the actions of the aggressor state and limit the presence of the Russian Federation in international sectoral organizations, and also emphasizing the need to support Ukraine on the way to the EU, first of all concerning the accession of Ukraine to the RLAH.

Therefore, to help to restore the sector electronic communications from consequences of full-scale armed aggression of the Russian Federation against Ukraine and ensure its sustainability NCEC succeeded to attract international aid in the form of equipment needed by mobile communication operators to restore networks and in view of the tragedy as a result of the missile shelling of the Russian Federation terminal of Nova Poshta LLC in Kharkiv (October 21, 2023), at the request of NCEC the ERGP provided support to the company and published a corresponding statement.

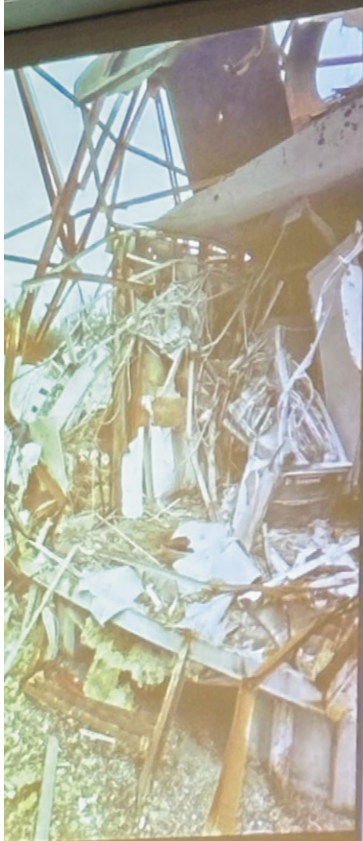


As part of participation in the Summit of the Four of regional platforms – BEREC-EMERG-EaPeReg-Regulatel, Chairman of NCEC Oleksandr Zhyvotovskiy as representative of BEREC introduced Ukraine's unique experience in providing communication to Ukrainians in the conditions of ongoing full-scale war of the Russian Federation against Ukraine and the importance of stability and resilience of electronic communication networks to ensure peoples' ability to communication

in emergency situations, and during the Plenary meeting NCEC presented key tasks in the field of electronic communications, preparing for the new autumn-winter season period, measures taken with the goal to improve the quality of services and the corresponding supervision (control), and also noted key challenges and needs of the sector on this way. BEREC noted the meritorious contribution of NCEC as a regulatory body in this relation, which is mentioned in the respective message.



Oleksandr Zhyvotovskiy, Chairman of NCEC:
"When you see pictures of destroyed telecommunication infrastructure, it is important to remember that full-scale war is not about damaged base stations, cables or Ukraine. This is about the rule of law, the right of the country to determine its way, unity within the EU or NATO and the world as a whole. The only way to deal with these threats is to get out of comfort zone and do the right thing, be it an attempt to go into the field to mend the ragged cable, or just say the right word."



DAMAGED TELECOM
INFRASTRUCTURE



BEREC
Body of European Regulators
for Electronic Communications



As part of the GSMA Ministerial Program during the annual World Congress of mobile communications, Liliia Mallon, member of NCEC, emphasized the importance of communication and stability of networks in full-scale conditions of war, the role of the regulatory body in these processes, technological developments, which will reduce dependence on electricity and will

ensure network autonomy, as well as the need for comprehensive international support and humanitarian aid to Ukraine.

In addition, there were also the above-mentioned questions presented at the meeting of the Working Group with issues of telecommunications and information society (WP TELECOM) of the Council of the EU.

DEEPENING EUROPEAN INTEGRATION: ON THE WAY TO EU MEMBERSHIP

Accession of Ukraine to the single roaming zone of the EU – "Roaming like at home"

In order to provide Ukrainians with affordable and high-quality communication in full-scale conditions war of the Russian Federation against Ukraine, in 2022 with the assistance of NCEC and with the support of the European Commission, European Parliament and participation of BEREC, a Joint statement between Ukrainian and European operators mobile and fixed communication was signed regarding affordable roaming for Ukrainians in the EU. By the results of the monitoring carried out by NCEC and BEREC regarding practical implementation of provisions of the document by its signatories (operators), in 2023 it was successfully extended twice, the last time – until 09.07.2024. Thanks to this, about 4 mln subscribers of Ukrainian operators can use available international roaming services on EU territory.

The implementation of the Joint Statement was also important in the context of dialogue about the possibility of joining Ukraine to the EU roaming zone "Roaming like at home" (RLAH). To fulfill agreements reached between Ukrainian and European parties, with the participation of NCEC specialists, including training and coordination, it is ensured to work out proposals to the draft decision of the Ukraine-EU Association Committee in trade configuration regarding the renewal of the Association Agreement by accepting Ukraine's obligations regarding implementation of the EU acquis in relation to roaming Committee decision No. 1/2023 entered into force 24.04.2023.

In order to implement the specified Decision of the Committee, NCEC together with state authorities, mobile operators and experts of the project "DS2UA", within the working group formed by NCEC, developed the draft Law of

Ukraine "On introducing changes to some by-laws of Ukraine regarding the implementation of European legislation on roaming", which was submitted to the SCU (reg. No. 10265 dated 17.11.2023).



Approximation of Ukrainian legislation to EU law

Approximation of Ukrainian legislation to EU law for the purpose of practical implementation of the Law on EC and the Law on NCEC, also provisions of the European implemented by

the European Electronic Communications Code (Directive (EU) 2018/1972), development and adoption of it is ensured by NCEC by 29 by-laws during 2023.



On May 25, 2023, the Law on Post, by which the provisions of Directive 97/67/EU are implemented and a number of new powers has been provided to NCEC in terms of regulating the corresponding sector. To fulfill provisions, NCEC ensured the development and adoption of 5 by-laws.

During the 24th Ukraine-EU Summit (February 3, 2023) the preparation of the National implementation programs to legislation of Ukraine was initiated, an important stage was the initial assessment of the state of implementation of the EU acquis ("self-screening"), which was carried out by analysis of compliance of Ukrainian legislation with EU laws. NCEC actively joined the self-screening – our experts have reviewed several thousand acquis EU (in 4 sections):

"Freedom of entrepreneurship and provision of services", "Antimonopoly policy", "Digital transformation and media", "External relations" on the subject of their necessity implementation, and as the main executor – 6 EU acquis were analyzed by NCEC in detail.

Thanks to the European experience involved within the framework of the TAIEX seminar, competent state authorities, including NCEC, have worked out a mechanism for implementing the Index of digital economy and society (DESI) in Ukraine (Order of the CMU dated September 5, 2023 No. 774-r), it is an EU tool for digital effectiveness assessment of member states. NCEC is defined responsible for the creation of indicators DESI by component 2 "Connection to Internet".

Another important component of European integration processes is accessibility of the EU acquis for understanding and proper implementation – the Ukrainian translation of such acts, and also their terminological examination. Within relevant activity, NCEC has worked out 10 relevant EU acts (over 300 pages). Also, the participation of a representative of NCEC in Working (expert) group on assessment of translation quality of EU acquis acts and acts legislation of Ukraine, within the framework of the first the meeting of which approved the translation of 9 acts EU Rights (over 180 p.).



Body of European Regulators for Electronic Communications (BEREC)

In 2023, NCEC took an active part in work of BEREC as a participant without voiting rights. In particular, NCEC specialists joined the activities of BEREC at the level of working groups, where the main work is carried out in the development of draft documents that allows to participate in the work at the stage of BEREC decisions development, and also take into account proposals of NCEC during development and implementation policies in the field of electronic

communications. Management and appointed experts represented NCEC during BEREC plenary sessions and at the level of BEREC contact network, during the year, in which attention was systematically drawn to challenges faced by NCEC and the electronic communications sphere in the conditions of ongoing full-scale armed aggression of the Russian Federation against Ukraine, relevant needs, as well as unique experience gained by Ukraine.



European Regulators Group for Postal Services (ERGP)

In 2023, NCEC continued cooperation with ERGP in observer status. In particular, during the 25th Plenary meeting of ERGP, a member of NCEC once again emphasized the problems and challenges, which the postal sector faces on a

daily basis in Ukraine. In addition, at the request of NCEC, ERGP expressed concern about the destruction of postal infrastructure and human losses, and also urged EU postal operators to help Ukrainian operators.

European Commission Radio Spectrum Policy Group (RSPG)

In June 2023 on the invitation of the RSPG Chairman, the Ukrainian side, including NCEC, joined the RSPG as an observer. NCEC representatives took part in two RSPG meetings and three meetings of the drafting subgroup of the RSPG, devoted to development of the Work Program project of RSPG by 2030, a matter of

preparation to the World Radio communication Conference 2023 of the International Telecommunication Union (ITU-23), roadmap for the 6G spectrum, use of the UHF/microwave range and others issues related to EU policy in the field spectrum use planning.

NCEC IN INTERNATIONAL ORGANIZATIONS

European Conference of Postal and Telecommunications Administrations (CEPT)

Specialists of NCEC and UCRF ensured participation in the meetings of the CEPT working groups on preparation for CPG-23, as well as consideration of the first and the

second package of Joint Offers of the countries of Europe (ECPs) to items on the agenda of the CPG-23 within the framework of the CEPT Working Group for CPG-23.

International Telecommunication Union (ITU)

During the meeting of the ITU Council (July 11-21, 2023) the updated Resolution 1408 "Aid and support to Ukraine for its recovery of the telecommunications sector", was developed with the participation of NCEC. In the updated Resolution, which was co-authored by 49 ITU member countries, for the first time it is mentioned about the negative consequences full-scale aggression of the Russian Federation against Ukraine and the negative influence of the Russian Federation on the activities of the ITU. The amendments to Resolution 1408 are focused on providing aid and support to Ukraine in restoration of the electronic communications sector, infrastructure, in particular, to acceptable level that requires international assistance of communities on a bilateral, regional basis levels or through international organizations. Also, to implement the Resolution 1408 of the ITU Council, with the active participation of NCEC representatives, ITU European Regional Bureau developed the Ukraine Digital Development Country Profile (January 2023). This review has on aims to provide basic research for making strategic decisions regarding initiatives, which will be implemented as part of the UN Transition Framework Program and the Framework Program of UN cooperation on sustainable development (UNSDCF) for Ukraine on development of digital technologies and ITU

to support the concept of sustainable and resilient recovery through digital development. NCEC representatives as part of the Government delegation of Ukraine took part in CPG-23 (November 20-12, 2023) and together with UCRF, according to their competence, ensured tracking and coordination of issues in agenda of CPG-23 for the purpose of protecting the interests of Ukraine. Among the decisions of CPG-23: approved the issue of spectrum allocation for international mobile communication (IMT) – that will contribute to the expansion of broadband connection and development of IMT mobile services – 4G, 5G and in the future – 6G.

Also, to the Final Acts of CPG-23 Ukraine has submitted a petition regarding full-scale invasion of the Russian Federation on the territory of Ukraine, which emphasized systematic destruction of critical electronic communication infrastructure, and, as a result, suffering of Ukrainians from communication service interruptions. The confiscation of Ukrainian operators' equipment on occupied territories was declared, as well as illegal use of radio frequency resource of Ukraine. The position of Ukraine is supported by a similar statement on behalf of 44 member countries ITU on condemnation of the actions of the Russian Federation.

Universal Postal Union (UPU)

As part of the work, NCEC sent a request to UPU leadership regarding the issuance of codes for international mail processing center shipments (IMPC) for not designated postal operators. Indicated question is one of strategic importance both for key market players, as well as for UPU, so it was actively discussed during of

the fourth Congress of the UPU (city of Riyadh, 01-05.10.2023). Among the main results of the Congress – the opening of the UPU for a wide range of postal participants. Thus, such changes will have an impact and will determine policy in the future of international postal delivery.

World Trade Organization (WTO)

NCEC specialists were actively involved in the work of Ukrainian party in the WTO, in particular within the framework of Joint initiative on electronic commerce where,

during multilateral consultations, new texts of proposals on telecommunication services, the co-sponsor of which is also Ukraine were developed.

BILATERAL COOPERATION

In 2023, NCEC expanded its partnership network and concluded bilateral memoranda on mutual understanding with the Federal Communications Commission of the United States of America (FCC) and the National Communications Authority of the Portuguese Republic (ANACOM). In addition, during the year, the NCEC team conducted a number of bilateral and thematic meetings and seminars with colleagues from FCC, ANACOM and Office

of Communications of Great Britain (Ofcom), the subject of which were deepening of cooperation and support of Ukraine in the field of electronic communications, exchange experience in key areas of activities, including: protection consumer rights, quality of services, market analysis, stability of the infrastructure of electronic networks communications, restoration and provision communication in emergency situations, etc.





Free Trade Agreements (FTAs)

The signing took place on September 22, 2023 updated (expanded) between Ukraine and by Canada. NCEC, as a regulatory body, took participation in the relevant negotiation process in terms of telecommunication trade (electronic communication) services. Also, during the year, representatives of

NCEC participated in the negotiation process regarding conclusion of the Agreement between the Government of Ukraine and the Government of the United Arab Emirates regarding telecommunication services, also in the negotiations on revision of the FTAs between Ukraine and EFTA states.

INTERNATIONAL TECHNICAL ASSISTANCE

In 2023, NCEC continued its implementation of 2 EU technical assistance projects and 4 events were carried out within the framework of the tool technical assistance of the EU TAIEX. As part of the EU technical assistance the project "DPS2UA" together with NCEC team not only continued to implement key areas, but also started new ones, in particular "Support in the conduct of RLAH in Ukraine." The key achievements are on the basis of the developed BU-LRIC model by NCEC resolution No. 391 dated

18.10.2023 "On approval of settlement fees for national traffic termination services for mobile and fixed voice communication", approval, implementation and updating of methodology for geographical surveys (NCEC resolution No. 437 dated 22.11.2023), preparation has begun for information campaign for electronic communication services subscribers, a number of thematic seminars were held, as well as a number of communication measures has been implemented.



Within the framework of the project "EU support in strengthening of cyber security in Ukraine", which in 2023 was officially completed, NCEC as one of beneficiaries received partial support in increasing the security and stability of the domestic infrastructure of NCEC. During the year,

4 events were held under the TAIEX. In particular, 3 seminars on DESI, regulation roaming in the EU – RLAH and postal services, and there was also a study visit to designated operator of La Poste, France regarding development and implementation of rules and terms of providing postal services.



6 SECTION

PROTECTION OF CONSUMER RIGHTS

Protection and provision of legal rights of consumers are one of the key tasks for NCEC. During 2023, NCEC received a total of 6,397 appeals from citizens, including:

	6 343 Individual 99,9%	6 Collective 0,1%
Applications/requests	3 972	62,6%
Complaints	2 354	37,1%
Offers	23	0,3%

Compared to 2022, the number of appeals of citizens increased by 14.5%, but compared to 2021 total number of appeals to NCEC decreased by 44.7%. Such changes are primarily caused by changes in life conditions of the population and migration processes due to with the ongoing

full-scale armed military aggression of the Russian Federation against of Ukraine, as well as a decrease in the number of subscribers of fixed communication services and radio broadcasting services using wired network, improving the provision service providers, etc.

Dynamics of requests received in 2021-2023 (number of requests)

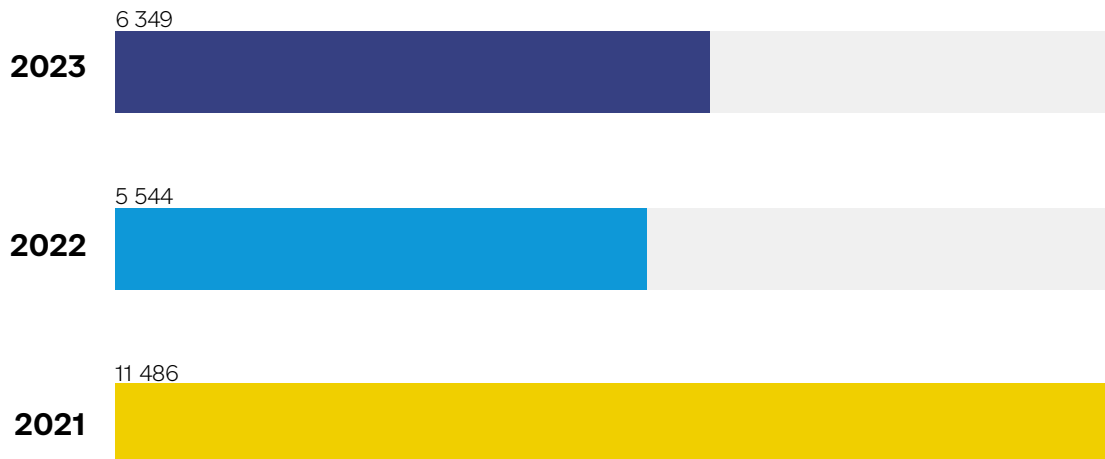


Figure 6.1

Sources of appeals to NCEC during 2023

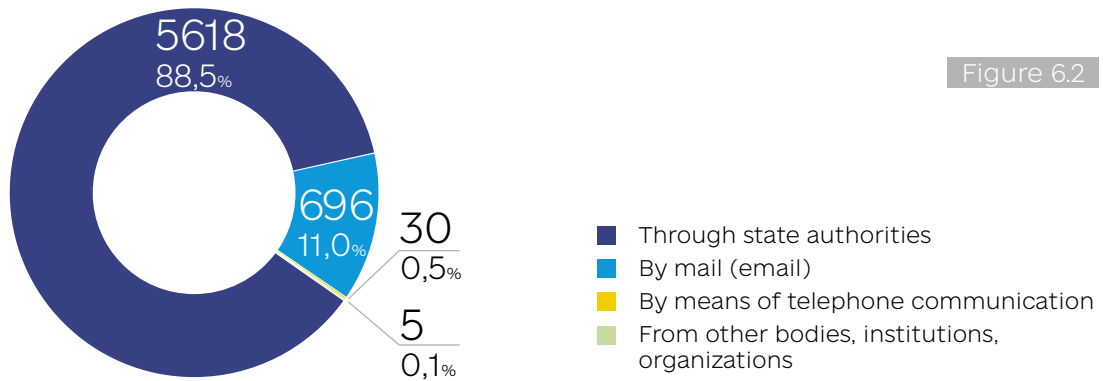


Figure 6.2

It should be noted **that through state authorities**, the most appeals came from:

- State institution "Government contact center" –

5 221 appeals;

- State Service of Ukraine on consumers protection

150 appeals;

- Secretariat of the CMU –

84 appeals;

- Digital Ministry –

26 appeals;

- Secretariat of the Supreme Commissioner of Human Rights, Supreme Council of Ukraine –

19 appeals;

- Antimonopoly Committee of Ukraine –

18 appeals;

- Ministry of Infrastructure –

16 appeals.

Results of appeals

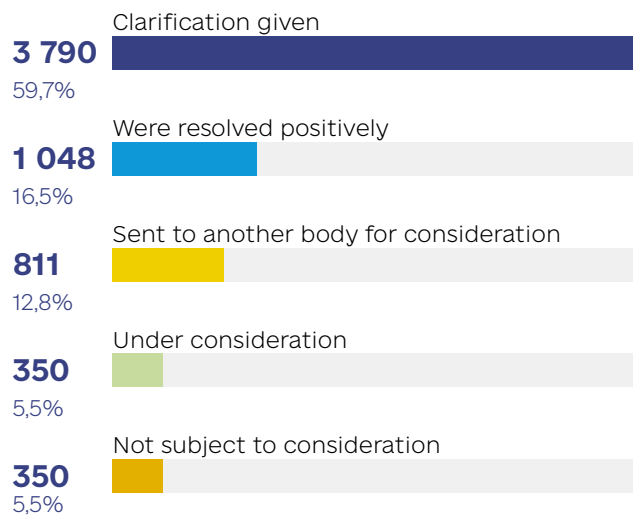


Figure 6.3



MAIN ISSUES RAISED IN THE APPEALS:



on matters of mobile voice communication services provision

2 936

46,2%

regarding disagreement with the withdrawal of funds from personal account (with size of issued invoices), changes tariff plan (tariffs/conditions), poor communication, work of providers' call center, lack of access (coverage) and lack of access (blocking).



on matters of mobile Internet access provision

266

4,2%

regarding low-quality service provision, long-term lack of access, disagreements with the size of the invoices (with withdrawals) and tariff plan changes (tariffs/conditions).



on matters of fixed voice communication services provision

1 106

17,4%

regarding the long-term absence of voice communication, disagreements on invoices issued, conclusion/termination of the contract (connecting/disconnecting the phone), changes in the tariff plan (tariffs/conditions), provision of help desk services, low-quality voice communication and order of receipt of invoices.

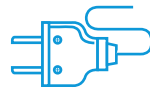


on matters of fixed Internet access services provision

581

9,2%

regarding long-term lack of access, disagreements with the size of the invoice (with withdrawals), low-quality provision of services, changes in tariff plan (tariffs/conditions), conclusion/termination of the contract (connection/disconnection of services).



on matters of providing the broadcasting services using the wired network

472

7,4%

regarding prolonged absence, low-quality service provision, conclusion/termination of the contract (connection/disconnection radio points) and disagreements in issued invoices.



on questions of radio frequency spectrum

22

0,3%

regarding the legality of the radio electronic means installation and radio electronic devices creating interference



on matters of postal services provision

545

8,6%

regarding tracking of postal items, order of delivery and delivery itself, violation of timeframes, loss/damage/not full delivery, disagreements with returns and disagreement with the size of tariffs.



on matters of porting numbers provision

109

1,7%

regarding the refusal to porting the number and other organizational aspects.



other questions, not related to specified services

312

4,9%

regarding the demonstration of gratitude to employees of providers, blocking sites, non-receipt, NCEC answers, disagreement with the answer of NCEC, withdrawal from consideration of the appeal, the issue of amateur regulations radio communication of Ukraine (improvement of the document), participation in raffles, opening access to public cadastral map, etc.

During 2023, personal reception of citizens was held by the Chairman and members of NCEC, as well as operation of the telephone "hotline" for citizens' appeals by phone number 044 202-00-81.

To the NCEC hotline during 2023 year, 109 citizens appealed, while taking into account the wishes of the citizens, 30 appeals were issued in accordance with the Law of Ukraine "On Citizen Appeals", which is included in the total number of appeals for 2023 year.

For reference. A "hotline" has been created in order to enable consumers get competent advice from specialists on the provision of electronic

communications services, postal services and help to form (submit) an appeal according to the result of the conversation, as well as to explain oral appeal to an official of NCEC.

In addition, during 2023 to the NCEC public reception desk appealed 650 citizens by the phone. The main questions were regarding order submission of appeal to NCEC, status of appeal submitted to NCEC regarding poor quality of electronic communication services provision, etc. For all appeals of citizens in the format of phone calls specialists provided competent consultations on the issues raised by them.



7

SECTION

TRANSPARENCY OF NCEC ACTIVITIES AND STATUS OF CAPACITY TO PERFORM TASKS AND EXECUTE POWERS

TRANSPARENCY AND OPENNESS OF NCEC ACTIVITIES

In order to implement the Law on NCEC, the Commission organized its activities in 2023, adhering to the principle of openness in discussions, decision-making and comprehensive publicity in planning and implementing appropriate measures. NCEC pays special attention to secure transparency and openness of their activities allowing free access to meetings and participation in them (online) representatives of economic entities, public associations, media representatives, as well as physical and legal persons, as well as opportunities to get acquainted with results of the Commission's activity.

Thus, during 2023 57 out of 73 meetings were held by NCEC in the open form, during which representatives of the public and network/service providers participated in most of the decisions and resolutions that have been adopted by NCEC – 449 out of 506, which is about 90% from the total number. It is worth noting that compared to 2022, the number of NCEC decisions revisions and resolutions increased and almost doubled – from 273 to 506.

On the official website of NCEC in the section "NCEC meetings" during 2023 the agenda was regularly published of each NCEC meeting with a list of questions and relevant materials for their discussion in the form of open hearings made on meeting. In addition, in defined by the Law on NCEC deadlines on the official NCEC website the results of the rulemaking were made public and regulatory activities, in particular, register the adopted decisions of NCEC and minutes of NCEC meetings, held in the form of open hearings. Additionally, a viewing option has been created for meetings of NCEC held in open form of hearings, in the recording and on the NCEC YouTube channel.





For wide and timely information of telecom communities and media regarding planning of its regulatory activities on the official level the relevant information was made public on the NCEC website during the year, namely: NCEC Activity plan for 2024 with preparation of projects of regulatory and legal acts, which have the characteristics of regulatory acts, and the NCEC activity draft plan in regulatory acts of the CMU for 2024, approved by the decision of NCEC dated 13.12.2023 No. 470.

The process is open and transparent as well as involvement of the public in participation of development of NCEC regulatory projects acts. Thus, during 2023 on official website of NCEC for conducting consultations defined by the Law on NCEC, 28 by-laws projects were made public (24 in 2022), that had qualities of a regulatory act, together with materials explaining the necessity of their adoption and regulatory analysis impact. It also provided suggestions and comments sent to NCEC, which were necessarily considered by the Commission, and were also voiced during meetings with summing up the public discussion of projects.

Two important events also took place in 2023 both for NCEC and representatives of the electronic communications and postal sector, namely:

- On April 11, 2023, the first annual NCEC meeting was held in the form of conference "Regulator 3.0. Ukraine is in touch" with participation of 18 speakers and more than 150 participants from sector of electronic communications, postal services, government representative bodies, foreign partners and Ukrainian media where the results were presented regarding the first year of NCEC work and key areas of activities at the national level and international levels, the state of the industry and the impact of a full scale invasion of the Russian Federation to the territory of Ukraine, European integration achievements, plans and key priorities, needs and potential challenges in the field of electronic communications in 2023. There was also special attention given to the importance of the role of the independent Regulatory body for the development of the industry and in the context of Ukraine's integration into the Single EU digital market. The event was held with the support of the EU technical project "Digital Policy Support to Ukraine";
- 15.12.2023 with the assistance of NCEC and The Ministry of Infrastructure conducted the first Conference of postal stakeholders "Ukraine in the world and European postal area: state and development perspectives" with participation of representatives of leading operators postal service of Ukraine, international organizations – the Universal



Postal Service (UPU), Groups of European Regulators postal services (ERGP) and European committee of postal regulation, as well as foreign colleagues from France, Germany, Poland and Sweden.

In order to fulfill and comply with the requirements of the articles 15 and 16 of the Law on NCEC 29.03.2023 NCEC published Report on the activities in 2022.

In general, in 2023 on the official website NCEC, in compliance with the principles of openness and transparency of the Commission's activities, were made public about 400 news and publications, which is a third more than in 2022, and with the goal of open dialogue with the interested community

Commission improved interaction through social networks, actively improving attractiveness and





the content of the official page of NCEC in the Facebook and posting new video content on the NCEC YouTube channel.

NCEC will continue to be open and transparently fulfill their mission – to work for the sake of everyone in Ukraine in order to have the opportunity to use high-quality, safe and available electronic communication and postal services.





ACCESS TO PUBLIC INFORMATION AND OPEN DATA

According to the Law of Ukraine "On access to public information" NCEC as administrator of public information received 78 requests during the year, which is almost twice as many as in 2022 (42 requests). Every third such request was related to the activities of network/ services providers (in particular, their presence in the Register of electronic communication networks and/or services), another third of the total number of enquirers were interested in individual activities of NCEC, and almost every tenth from those who applied for public information from NCEC, were interested in the issue of ban/blocking access to Internet resources or services (9 such requests were received).

Two thirds of requests (47 out of 78) were satisfied in fully or partially, 22 – refused in providing information due to its lack in NCEC, at the same time, 9 requests were duly sent to other administrators of public information.

For 2023, the public information accounting system, which is managed by NCEC, has filled up information on 506 documents.

During the year, NCEC continued the disclosure of information in the form of open data in accordance with the Law of Ukraine "On Access to public information": sets of open data were published more than 100 times in total and updated on the NCEC official website, as well as on the Unified State Web Portal of open data, including temporary data restrictions during martial law. So, in 2023, NCEC prepared and placed Report on the use of budget funds, in particular according to separate budgetary programs; reporting information of network/ service providers in activities of each provider by type of services for 2022 (data are given without taking into account providers who carry out their activity on parts of the territory located in the area of military (combat) operations or who are in temporary occupation, encirclement (blocking) in Donetsk, Luhansk, Zaporizhzhia and Kherson regions), as well as operator reporting indicators received by NCEC, telecommunications providers (networks/services providers).

PROVISION OF NCEC WITH HUMAN AND INFORMATION TECHNOLOGY RESOURCES

Staff support

Legislative requirements regarding specific functioning of state bodies in conditions of martial law, level of market request for the implementation of certain NCEC functions, legislative norms in the field civil service regarding the reduction of positions led to a review of the structure of NCEC, which entered into force on November 1, 2023, in particular:

- taking into account the direction of digitization and the relevance of cyber threats it highlighted the information technology division;
- due to termination, pursuant to decision of the Government, state market supervision under martial law – the corresponding unit is optimized;

- to improve control and ensure the quality of services in the field electronic communications – and separately electronic quality department communication services;
- in order to ensure participation of public in formation and implementation of state policy in the within NCEC powers, a subdivision was formed taking responsibility for information activities and communications with the public.


MAIN INDICATORS OF QUALITY COMPOSITION THAT ENSURE THE PERFORMANCE OF TASKS, AS OF 31.12.2023:

 260 regular number


76% 
working professionals in the team for more than 5 years


94% 
specialists, who have higher education – master's degree

75% 
staff

98% 
specialists, which passed professional training during 2023

15% 
of specialists, with English at level B1 and above

4 
specialists, which have scientific degree

64% 
civil servants, which received high marks according to the evaluation results of official activity for 2023

 49 average age of employees, incl. public servants

In order to meet educational needs the cooperation with more than 40 educational establishments was organized, in particular with 9 of them the agreements have been concluded with an emphasis on particular needs of NCEC specialists.

The main areas of training include:

- weighted average cost of capital (WACC),
- geoinformation system;
- construction of computer networks based on Cisco equipment (CCNAv7);
- use of the "Electronic court" system;
- Microsoft Excel;
- training on labor and public safety procurement, problematic issues of keeping military records and reservations, provision of pre-medical care in extreme conditions.



In addition, internal training is organized regarding ensuring the requirements of the legislation at implementation of internal processes and proper implementation of NCEC powers, for example on issues of state supervision, prevention of corruption, evaluation of official results activity, office management.

Also, in 2023, 13 workers successfully completed a two-year advanced English proficiency training, organized within the framework of the memorandum on cooperation between NCEC and the Higher School of Public Administration.

The problem remains in insufficient financing for the purpose of ordering training programs in the field of IT.

Documentary support

According to the results of 2023, general NCEC's document circulation consisted of 84,081 documents:

- incoming documents: **57,295;**
- source documents (letters): **19,321;**
- internal documents: **7,465.**

In total, in 2023, under control of NCEC there were 8,376 documents. NCEC Software effective performance of assigned tasks on employees or structural divisions was conducted through weekly anticipatory performance monitoring. This included analysis of decisions, orders, instructions, commissions and other acts that are foreseen as legislation and accepted decisions of Commission, and proof of the above information at meetings of NCEC. Implementation of effective control measures in NCEC during 2023 contributed to a high level of compliance and successful implementation of defined tasks.



84,081

NCEC General
document flow

LEVEL OF NCEC DIGITALIZATION

For the purpose of quality preparation for ERP subsystems deployment, which is one of the priority tasks of NCEC, within the framework of the EU technical project "EU support for strengthening cyber security in Ukraine", deployment and introduction on server and switching operation equipment, software virtual machine monitors and automated backup copies is ensured. These measures contributed to modernization of the NCEC local computer network, increased the protection of the local area network and preparation of NCEC for implementation of new secure information and communication systems and services for citizens and communication with industry, allowed to improve sustainability of information and communication infrastructure.

Given the importance of building ERP as automated information and analytical systems of the regulatory body, upon request of the Law, which should become one of key tools for implementation of their constitutional rights of subjects and users of the communication industry, during 2023 NCEC continued its work on the preparation of general technical requirements for ERP and its elements, namely technical requirements and descriptions and register keeping systems referred to powers of NCEC were developed, in particular regarding:

- Single state register of postal communication operators
- Register of licenses for use radio frequency spectrum
- Register of radio equipment and radiating devices
- Register of primary distribution of numbering resources

Implementation of ERP will allow not only to receive administrative services electronically, but also for citizens to participate in the implementation of regulatory policy in the field of electronic communications.

Taking into account the effect of the martial regime of the state introduced by the Decision, and as a result – withdrawal of funds that were planned for implementation of informatization projects at NCEC for 2022, in accordance with the resolution of the CMU dated 10.03.2022 No. 245 "On directing funds to the reserve fund of the state budget", and the absence of the corresponding financing in 2023, measures were implemented regarding the possibility of involving technical projects assistance in the creation and implementation of ERP.

Work was carried out within the framework of the DPS2UA Project regarding the development of the new NCEC website. Creating such a web resource is essential and will improve the transparency of NCEC activities by coverage of information on news and events, and will also provide access to documents, which are managed by NCEC.



RESULTS OF THE NCEC ANNUAL EXECUTION OF THE BUDGET (AUDIT) IN 2023

The Law of Ukraine "On the State Budget of Ukraine for 2023" and the estimate for 2023 NCEC funding is provided for 2023 from the general fund of the state budget for budget program 5561010 "Management and operation in the fields of electronics communications, radio frequency spectrum and provision of postal services" in the sum of 110,341.0 thousand UAH, including: salary with accruals amounted to 72,424.4 thousand UAH – 65.7% of the total amount of financing, communal services and energy carriers – UAH 3,022.8 thousand, the share was 2.7% and others expenses amounted to UAH 34,893.8 thousand – 31.6%.

in the budget allocation, justification of the need for budget appropriations and their effective use have been established.

NCEC has not taken any financial obligations that exceeded the estimated targets.

Violations of the procedure for making changes has been established. In 2023, the amount of budget allocations, allocated from the general state fund budget amounted to UAH 110,341.0 thousand, of which used (cash expenses) UAH 108,869.3 thousand. Difference between approved and cash expenses amounted to UAH 1,471.7 thousand.

Estimates of NCEC 2023

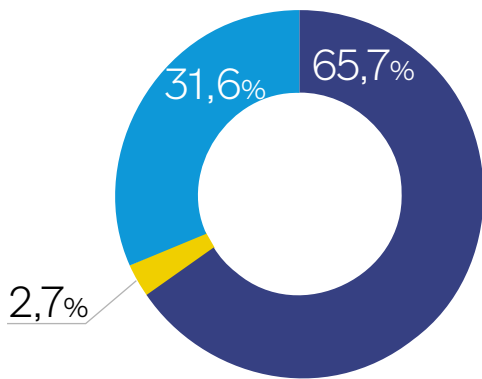


Figure 7.1

- Payment of labor with accruals
- Other expenses
- Utilities and energy

The goal is the efficient use of budget funds as they were redistributed in terms of economic classification of budget expenditures within the total volume by budget program approved and NCEC estimates in 2023.

According to the above program for 2023 finances are distributed in full. As part of an internal performance audit on the topic: "Results of the NCEC annual performance estimated for 2023" assessment of the state of execution of the estimate and the efficiency of using budget funds was conducted.

The conducted analysis of composition and approval of the NCEC estimations for 2023, as well as the general state of its implementation as per the conformity of the amounts approved

Execution of the NCEC estimations in 2023, thousand UAH

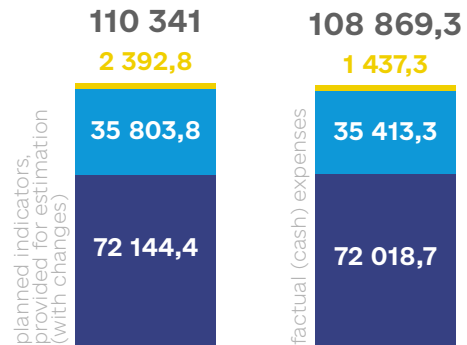


Figure 7.2

- payment of labor with accruals
- payment of other expenses
- payment of utility services and energy

Collected audit evidences confirm sufficient level of efficiency and implementation planning of the NCEC estimations for 2023 as evidenced by the positive indicators which were examined during the assessment.

NCEC PRIORITIES FOR 2024

HARMONIZATION OF UKRAINIAN LEGISLATION WITH ACQUIS EU FOR INTEGRATION INTO SINGLE EU DIGITAL MARKET

- performance of tasks related to implementation of Ukraine's integration into the EU and the single digital market of the EU, including implementation of the provisions of the Agreement on association and harmonization of legislation, in particular, with the aim of joining Ukraine to the single roaming area of the EU (Roam Like At Home)
- development and implementation of by-laws acts to implement the provisions of the Law on EC, the Law on Post and the Law on NCEC

RESILIENCE AND SUSTAINABILITY

ensuring the stability of electronic communication networks in emergency situations, emergency conditions and martial law;

PROTECTION OF CONSUMER RIGHTS

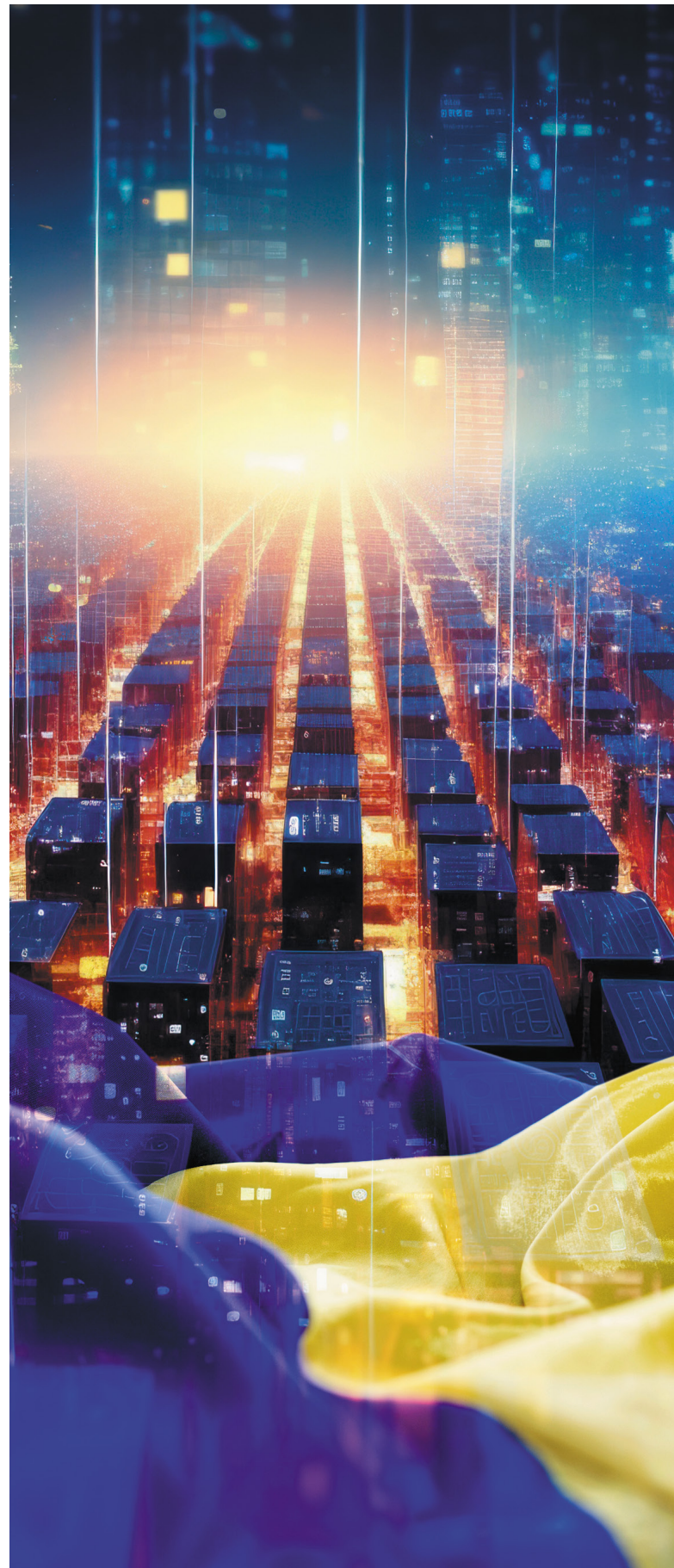
ensuring the protection of rights and legal consumer interests regarding accessibility and receiving electronic communications services, and postal communication of appropriate quality, in particular ensuring the availability of universal electronic communication services;

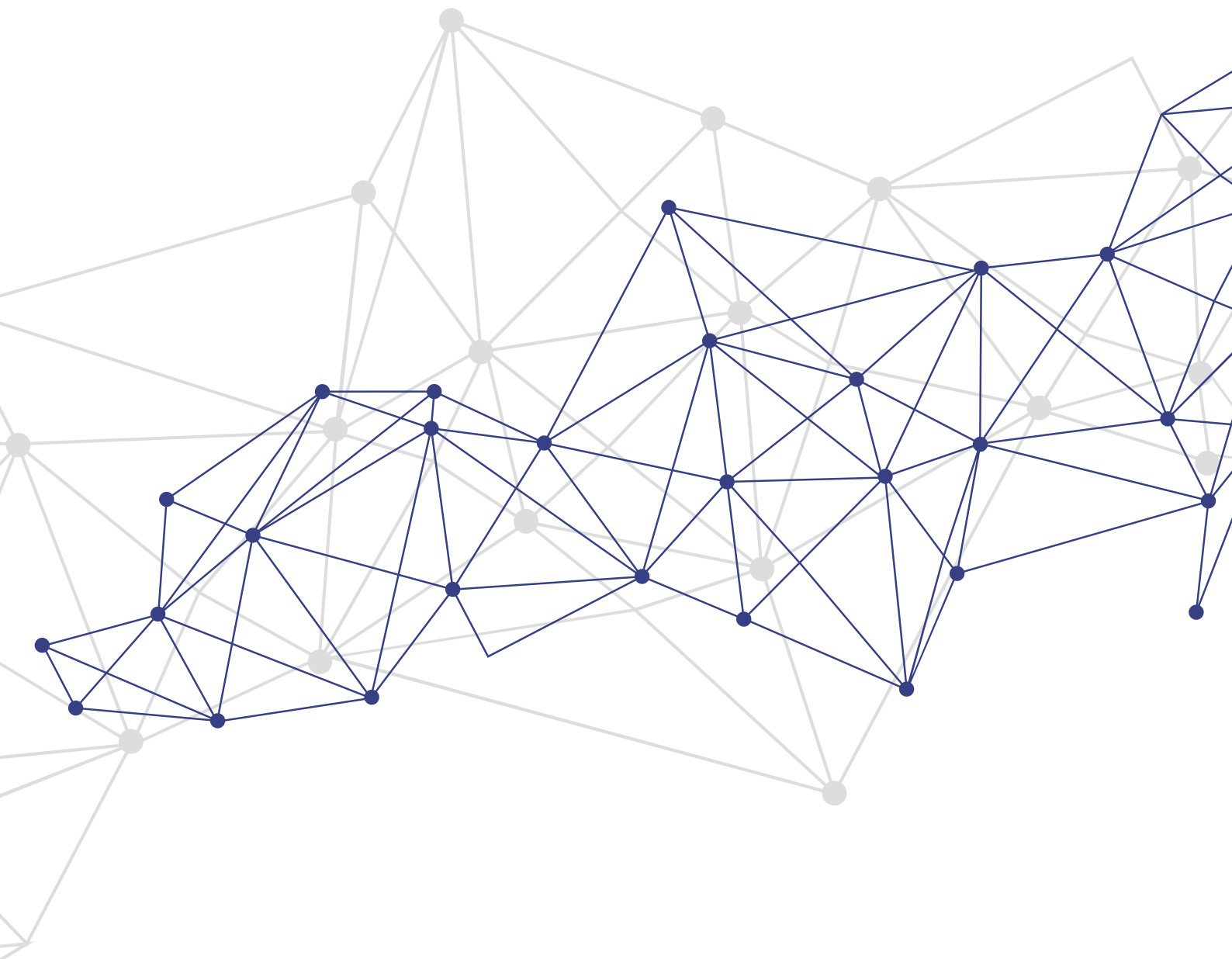
DEVELOPMENT OF ELECTRONIC COMMUNICATION NETWORKS AND SERVICES AND IMPLEMENTATION OF THE NEWEST RADIO TECHNOLOGY

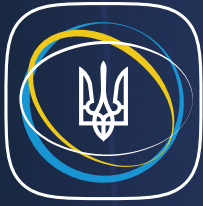
providing operators with additional radio frequencies for use as per competitions principles with the aim of implementing the latest radio technologies to provide consumers with modern and high-quality electronic services communications, assistance in deployment of 5G mobile coverage and stable Gigabit broadband connection;

DIGITALIZATION

development and implementation of elements of Electronic regulatory platform as a single, integral and standardized information and communication interaction of the regulatory body, business and citizens, integrated into a single digital space of the state information resources.







**NATIONAL COMMISSION
FOR THE STATE REGULATION
OF ELECTRONIC COMMUNICATIONS,
RADIO FREQUENCY SPECTRUM AND
THE PROVISION OF POSTAL SERVICES**

**NATIONAL COMMISSION
FOR THE STATE REGULATION OF ELECTRONIC
COMMUNICATIONS, RADIO FREQUENCY
SPECTRUM AND THE PROVISION
OF POSTAL SERVICES (NCEC)**

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