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III. MANAGEMENT OF SCARCE RESOURCES

1. Frequency spectrum

CRC manages the frequency spectrum allocated for civil needs in the National plan for radio frequency allocation and the positions on the geostationary orbits allocated to the Republic of Bulgaria via international agreements. In compliance with its powers under LEC, the Commission determines the specific technical requirements for the operation of electronic communication networks and related equipment, provides frequencies and frequency bands for use, and performs coordination of frequencies and frequency bands at both national and international levels so that to ensure conditions for the effective, efficient and interference-free use of the radio frequency spectrum.

In compliance with the European approach to liberalization in the use of the radio frequency spectrum, in 2012, CRC adopted two regulations related to its management - Technical requirements for the operation of terrestrial networks capable of providing electronic communications services, and Rules for operation of electronic communications through radio equipment using radio frequency spectrum which does not need to be individually assigned. The following secondary legislative regulations related to the management of the frequency resource were amended and supplemented:

- Technical requirements for the operation of electronic communications networks from a fixed radio service and related equipment;
- Technical requirements for the operation of land mobile networks and related equipment;
- List of radio equipment using frequency bands harmonised throughout the European Union and electronic communications terminal equipment.

CRC performs its powers related to the management of the frequency spectrum and the positions on the geostationary orbit in compliance with the Radio Regulations of the International Telecommunication Union, decisions and recommendations of the European Commission and the Electronic Communications Committee to the European Conference of Postal and Telecommunications Administrations.

CRC representatives took part in the activity of international organizations and organizations of the European Union related to the frequency spectrum management. In 2012, the World Radiocommunication Conference (WRC-12) of the International Telecommunication Union was held. CRC representatives took part in preparing the position of the Republic of Bulgaria on the Conference agenda items. During the Conference, experts of the Commission took part in international meetings aimed at speeding up the process for obtaining the agreement of administrations objecting the additional modification made to the planned position for BSS at 1.9° E.

1.1. Allocation, planning, assignment and efficient use of the frequency spectrum

With the adoption of the Technical requirements for the operation of terrestrial networks capable of providing electronic communications services, in 2012, the provisions concerning the conditions for the use of bands 900 MHz, 1800 MHz and 3400-3800 MHz, which were determined in the Technical requirements for the operation of land mobile networks and related equipment and in the Technical requirements for the operation of electronic communications networks from a fixed radio service and related equipment, were consolidated. The conditions, including the technical characteristics and parameters of radio equipment, for the use of frequency band 2500-2690 MHz for terrestrial networks capable of providing electronic communications services were determined, whereby the provisions of Decision 2008/477/EC of the European Commission on the harmonisation of the 2500-2690 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community were transposed in the Bulgarian legislation.

During the year, CRC conducted public consultations to study the interest of the business concerning the prospects for the use of frequency bands 71–76 GHz and 81–86 GHz, and the prospects for the use of the free resource in frequency band 26 GHz. As a result of this study, the Technical requirements for the operation of electronic communications networks from a fixed

radio service and related equipment were amended and supplemented. The requirements for the use of frequency bands 71–76 GHz, 81–86 GHz and 26 GHz were determined, thus ensuring conditions for the effective and efficient use of this frequency resource.

In the Rules for operation of electronic communications through radio equipment using radio frequency spectrum which does not need to be individually assigned, adopted in 2012, frequency bands were determined, along with conditions for their use, which until now had been specified in the General requirements for provision of public electronic communications; in this way, the secondary legislation regulation laying down the conditions for the use of the frequency spectrum which does not need to be individually assigned, became one and only. By adopting the rules, the provisions of Recommendation ERC/REC 70-03 of the Electronic Communications Committee on the use of short-range devices, revised on 22 August 2011, were transposed. Frequency spectrum and conditions for its use by Earth stations on board vessels (ESVs) were also determined, thus implementing the provisions of Decision ECC/DEC(05)10 of ECC on the free circulation and use of Earth Stations on board Vessels operating in fixed satellite service networks in the frequency bands 14-14.5 GHz (Earth-to-space), 10.7-11.7 GHz (space-to-Earth) and 12.5-12.75 GHz (space-to-Earth).

By amending the List of radio equipment using frequency bands harmonised throughout the European Union, and electronic communications terminal equipment, the provisions of Decision 2011/829/EU of the European Commission amending Decision 2006/771/EC on harmonisation of the radio spectrum for use by short-range devices were transposed in the Bulgarian legislation.

Mobile radio service

In 2012, MAX TELECOM OOD was granted a temporary permit for the use of individually assigned scarce resource - frequency spectrum for the provision of electronic communications via land mobile network - LTE on the territory of Sofia, whereby the undertaking was assigned 2x20 MHz in frequency band 2500-2690 MHz. The temporary permit was issued with the purpose to test new technical methods and/or technology.

CRC also issued a temporary permit for the use of individually assigned scarce resource – frequency spectrum in frequency bands 876-880/921-925 MHz for the provision of electronic communications via land mobile network GSM-R, to the National Railway Infrastructure Company. The temporary permit was issued with the purpose to test new technical equipment for construction of GSM-R network and new technical methods and/or technology for the provision of electronic communications via land mobile network GSM-R.

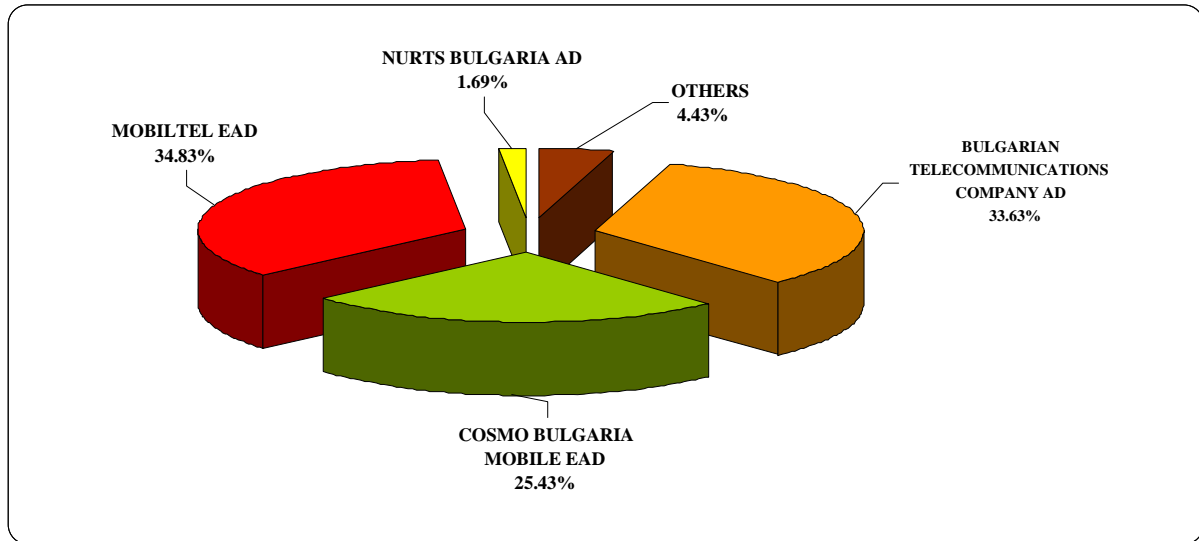
Following an analysis of the radio frequency spectrum provided for use and a national coordination and agreement of radio frequencies and frequency bands with all state authorities, departments and agencies concerned, 214 radio frequency channels (154 simplex and 60 duplex) were provided to undertakings for deployment of 317 new radio networks for the provision of electronic communications for private needs through an electronic communications network from the land mobile radio service – PMR (Private Mobile Radio), and thus, the total number of deployed networks reached 1,964.

Fixed radio service

In 2012, the technical data of a total of 2,788 radio relay links (RRLs) were amended and supplemented, including the provision of radio frequency spectrum to new 2,706 links, thus, their total number exceeded 18,036. At the end of the year, the number of operating RRLs grew by 1.8%, as compared to the end of 2011. One of the reasons for the small increase of the number of radio relay links was the acute improvement of technology used, which in the same or even in narrower bands determined the construction of networks with a total digital capacity of 150 to 900 Mbit/s in one destination through modulation levels of approximately 512 QAM. The trend for deployment of high-tech digital systems using XPIC/CCDP/ACCP technologies continued, as the number of RRLs using these systems reached 4,358 at the end of 2012 (an increase of over

31.66% compared to 2011 – 3,310 items), which is mainly due to the expanded network of BTC AD.

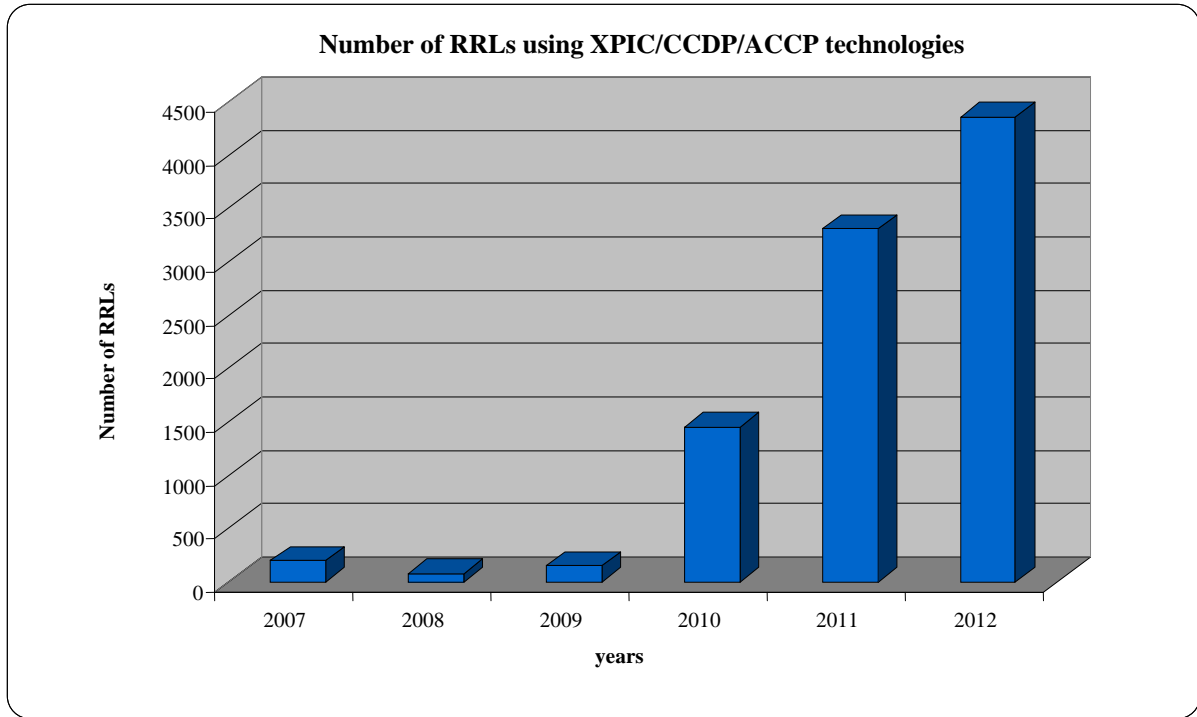
Figure 53 displays information on the share distribution of the main operators authorised to use the individually assigned scarce resource – radio frequency spectrum for the provision of electronic communications through an electronic communications network of the "point-to-point" type for 2012. The ratio is preserved, as compared to 2011, as the greatest change was reported by NURTS BULGARIA AD as a result of the need for development of the existing network with relation to the deployment of the backbone for distribution of terrestrial digital television (DVB-T).



Source: CRC

Figure 53

Figure 54 displays the breakdown of the growth of RRLs using XPIC/CCDP/ACCP technologies by years.



Source: CRC

Figure 55

The relative growth in the use of high-frequency bands, compared to the total number of RRLs, continued. In band 18 GHz, where the increase is most significant, their number reached 5,068, thus preserving the share of 28%. The development of high-density communications networks using the ultra-high-frequency bands continued. At the end of the year, RRLs in bands 26 GHz, 28 GHz and 38 GHz, for which there are permits issued for the use of the frequency spectrum, totaled 7,712, which increased the percentage ratio to 42.8% of the total number of RRLs at the end of 2012.

The trend for development of the service provision through networks for broadband wireless access (Broadband Wireless Access - BWA) continued in frequency band 3.4-3.6 GHz. The technologies organized as a duplex connection of the TDD type with a transmission band of 10 MHz in one direction were finally established. The total number of the WiMAX technology transceivers increased by nearly 50%, which allowed a considerable improvement in the offering of broadband service for fixed, nomadic and mobile connectivity.

The efficient management and use of the scarce resource - frequency spectrum requires the provision of conditions for new technologies and services to enter the market. Following the conducted procedures for public consultations on the prospects for the use of frequency bands 71–76 GHz and 81–86 GHz and the free resource in frequency band 26 GHz, the Technical requirements for the operation of electronic communications networks from a fixed radio service and related equipment were amended and supplemented.

Their amendment and supplement defined the requirements for the networks from the fixed radio service for the use of radio frequency band 71-76 GHz and the paired 81-86 GHz band. With relation to the increased opportunities for use of alternative polarizations in guard channels, the applied in-block spectral power density mask for the 26 GHz band was amended in accordance with ECC Report 32. It should also be noted that due to the lack of interest in the use of frequency band 28 GHz by electronic communications networks for fixed wireless access (FWA) and the great interest in its use for networks of the "point-to-point"

type, this band was allocated for networks of the "point-to-point" type only. Some technical parameters for specific bands were also updated with a view to the effective and efficient use of the scarce resource - frequency spectrum within them.

Determining the conditions for the use of frequency bands 71–76 GHz and 81–86 GHz from the fixed radio service will intensify the competition for their use, take away some of the growing burden of frequency bands 28 GHz and 38 GHz, and provide new opportunities for the undertakings providing electronic communications services for ultra wideband transfer via networks of the "point-to-point" type. The technical characteristics and specifics of ultra high frequency bands provide opportunity for a multiple re-usage of the frequencies, hence the smaller degree of scarcity of the resource within this band, compared to the bands operating until present. The distribution of frequency bands 71–76 GHz and 81–86 GHz is characterized by a very big width of the channels' frequency band (over 250 MHz) and eased coordination due to short distances (up to 1 km.).

The practice in many member-states of the European Conference of Postal and Telecommunications Administrations shows a clear trend of migration from the allocation of spectrum in frequency band 26 GHz exclusively for networks of the type fixed wireless access (FWA) to the allocation of sub-bands for the use of fixed wireless access (FWA) networks and for networks of the "point-to-point" type. An expansion of the frequency resource for networks of the "point-to-point" type in the 26 GHz band is observed in many countries.

Considering the foregoing, in addition to the statements received after the public consultations, CRC adopted a division of the band into separate sub-bands for both types of networks. Frequency bands 24.549-24.885/25.557-25.893 GHz (the first 12 channels with a 28 MHz band each) were allocated to networks for fixed wireless access (FWA), while frequency bands 24.913-25.249/25.921-26.257 GHz (the remaining channels with numbers from 14 to 32 inclusive, with a 28 MHz band each) - for networks of the "point-to-point" type.

Satellite radio services

In 2012, the activity related to regulation of satellite radio services was focused on the coordination of positions on geostationary orbit from fixed – satellite (FSS) and broadcasting – satellite (BSS) radio service. The goal of the process on coordination is to avoid potential interferences to the Bulgarian planned systems on position 1.2° W (BSS) and 56.02° E (FSS), as well as of the additional modification made to the planned position for BSS at 1.9° E. To this end, analysis was performed of the biweekly circulars (BR IFIC) issued by the Radiocommunication Bureau to the International Telecommunication Union, using specialized program products provided to the administrations. In the past year, a supplementary software of the International Telecommunication Union for analysis and calculation of potential interferences to the Bulgarian planned positions was studied and implemented.

After the analysis of all biweekly circulars for 2012, the relevant objections were sent in view of the performance of the regulatory functions of CRC in terms of the efficient use and efficient management of the scarce resource – frequency spectrum.

Broadcasting

In compliance with § 209, Para 5 of the Transitional and Final Provisions of the Law on Amendment and Supplement of LEC, the terrestrial analogue television broadcasting on the territory of the Republic of Bulgaria must cease as of 1 September 2013. In this regard, in 2012, the validity term of 117 authorizations for terrestrial analogue broadcasting of television signals with local coverage was changed, as undertakings have the right to use the individually assigned scarce resource – frequency spectrum until 01.09.2013.

CRC issued one authorization for the provision of electronic communications via electronic communications networks for terrestrial analogue and digital broadcasting of radio signals in the HF bands for service areas outside the territory of the Republic of Bulgaria.

Analogue broadcasting

In 2012, CRC provided 9 frequency assignments to an undertaking providing electronic communications through networks for terrestrial analogue broadcasting of radio signals with national coverage. In relation to the request of the Council for Electronic Media, an investigation was carried out and up-to-date information was provided for the availability of 26 frequency assignments, including technical parameters, admissible powers, points of broadcasting, as well as other technical information for the cities of Bansko, Dimitrovgrad, Kresna, Nova Zagora, Petrich, Razlog, Sandanski, Simitli, Smolyan, Sofia, Stara Zagora, Targovishte and Shabla. A total of 54 technical characteristics of electronic communications networks for terrestrial analogue broadcasting of radio signals were examined and analysed, of which 17 were of undertakings authorized to use individually assigned scarce resource – radio frequency spectrum for the provision of electronic communications via electronic communications network for terrestrial analogue broadcasting with national coverage, and 37 – of undertakings authorized to use individually assigned scarce resource – radio frequency spectrum for the provision of electronic communications via electronic communications network for terrestrial analogue broadcasting with local coverage. Examined were also technical characteristics of undertakings authorized to use individually assigned scarce resource – frequency spectrum for the provision of electronic communications via electronic communications network for terrestrial analogue broadcasting of television signals each separately with national and local coverage.

With Decision No. 604 of 13.07.2012, the Council of Ministers (CM) adopted a Plan for introduction of terrestrial digital television broadcasting (DVB-T) in the Republic of Bulgaria (the Plan). Item VI.3 of the Plan reads as follows: *"in the presence of harmful interference, whenever necessary and whenever possible, another scarce resource - frequency spectrum is provided for the radio transmitters for terrestrial analogue television broadcasting for the relevant service areas"*. In this regard, and with a view to the smooth passing of the period of simultaneous broadcasting via analogue and digital broadcasting network ("simulcast"), CRC carried out planning and designated a scarce resource necessary for terrestrial analogue broadcasting of television signals, for transmission stations which are affected by the start of broadcasting from digital networks. Television channels were assigned for 14 transmission stations of local undertakings and for 52 transmission stations of national undertakings.

Digital broadcasting

With regard to the already issued authorizations for terrestrial digital broadcasting to NURTS DIGITAL EAD and FIRST DIGITAL EAD, 34 technical characteristics were examined and analysed in a total of 9 service allotments: Blagoevgrad, Vidin, Kardzhali, Pleven, Plovdiv, Ruse, Smolyan, Stara Zagora and Shumen. Examined and analysed were also technical characteristics of the authorization for the use of individually assigned scarce resource – frequency spectrum for the provision of electronic communications via electronic communications network for terrestrial digital broadcasting on the territory of the city of Sofia, owned by NURTS BULGARIA AD.

1.2. National and international coordination

National coordination and agreement with all state authorities, departments and agencies concerned is carried out with the goal to ensure the aeronautical and maritime safety, the protection of national security, and the efficient use of the radio frequency spectrum. In 2012, in the Advisory Council for national coordination and agreement to CRC, 3,285 radio frequencies and frequency bands were coordinated and agreed.

Upon requests received from foreign administrations, international coordination of radio frequency assignments of 9 foreign FM radio stations with the appropriate technical parameters was carried out, in accordance with the Regional Agreement relating to the Use of the Band 87.5 – 108 MHz for FM Sound Broadcasting, Geneva, 1984 (Geneva -1984).

All biweekly circulars for 2012 of the Radiocommunication Bureau to the Radiocommunication Sector of the International Telecommunication Union related to the

international information on frequencies BR IFIC (BR International Frequency Information Circular) for terrestrial radio services were processed and analysed. In this respect, the following radio frequency assignments to foreign administrations were coordinated:

- 46 radio frequency assignments and the relevant technical parameters, in accordance with the Regional Agreement, Geneva - 1984;
- 128 radio frequency assignments and the relevant technical parameters of DVB-T transmitters, in accordance with the Regional Agreement relating to the planning of the digital terrestrial broadcasting service in the frequency bands 174-230 MHz and 470-862 MHz, Geneva, 2006 (Geneva - 2006).

The Radiocommunication Bureau was sent a request to add 2 radio frequency assignments to Bulgarian VHF-FM radio stations in Plan Geneva - 1984, and a request to enter the radio frequencies of 2 radio frequency assignments from a fixed radio service in the Master International Frequency Register.

In accordance with the procedures under Art. 12 of the Radio Regulations of the International Telecommunication Union, 25 frequency assignments for terrestrial analogue and digital broadcasting of radio signals within the HF bands were coordinated.

Radio frequency assignments for satellite networks from the biweekly circulars BR IFIC for fixed-satellite and broadcasting-satellite radio services were processed and analysed. As a result of the performed examinations of the technical parameters and the further calculations, correspondence was exchanged with the International Telecommunication Union and the relevant foreign administrations which had filed their requests with the biweekly circulars. In order to protect the Bulgarian positions on geostationary orbit and the assignments for fixed radio service from interferences, CRC sent objections, in accordance with the Rules of procedure of the Radio Regulations, to the International Telecommunication Union and to the administrations whose satellite networks might potentially affect us, as follows:

Written objections:

- upon coordination of non-planned satellite systems and existing Bulgarian terrestrial networks, pursuant to Art. 21 of the Radio Regulations – 18 objections for 36 satellite systems;
- upon coordination of satellite networks from the fixed-satellite radio service emitting in space to Earth direction and a possible interference to the feeder link of a satellite from the broadcasting-satellite radio service, pursuant to Art. 7 of Appendix 30A to the Radio Regulations – 2 objections for 2 satellite systems;
- coordination at close distance on the geostationary arc of a satellite network on planned position from the broadcasting-satellite radio service and non-planned satellite network, pursuant to Art. 7 of Appendix 30 to the Radio Regulations – 6 objections for 6 satellite systems;
- coordination for exceeding the carrier-to-noise (C/N) ratio for satellite systems from the fixed-satellite radio service in the frequency bands 4500-4 800 MHz, 6725-7025 MHz, 10.70-10.95 GHz, 11.20-11.45 GHz and 12.75-13.25 GHz, pursuant to Appendix 30C to the Radio Regulations – 3 objections for 3 satellite systems.

Objections submitted via specialized program products of the International Telecommunication Union:

- coordination for non-planned modification of satellite networks from the fixed-satellite radio service emitting in space to Earth direction and a possible interference to the feeder link of a satellite from the broadcasting-satellite radio service, pursuant to Art. 4 of Appendix 30A to the Radio Regulations – 2 objections for 2 satellite systems;
- coordination at close distance on the geostationary arc of a satellite network on non-planned position from the broadcasting-satellite radio service and non-planned satellite network, pursuant to Art. 4 of Appendix 30 to the Radio Regulations – 5 objections for 5 satellite systems;
- coordination of satellite station from broadcasting-satellite radio service and fixed radio service when both are on primary basis, pursuant to Art. 9.11 to the Radio Regulations – 2 objections for 2 satellite systems;
- coordination of emitting satellite station and receiving station from fixed radio service included in the table of frequency assignments, pursuant to Art. 9.14 to the Radio Regulations –

13 objections for 29 satellite systems;

- coordination of satellite station potentially affecting a radio service included in the table of frequency assignments, pursuant to Art. 9.21 to the Radio Regulations – 14 objections for 45 satellite systems.

The protection of the orbital resources of the Republic of Bulgaria for fixed-satellite and broadcasting-satellite radio services from other satellite systems is an important factor for the smooth implementation and operation of the national systems and the modification made from broadcasting-satellite radio service. Moreover, coordination allows the smooth operation of radio services in bands on co-primary basis.

1.3. Electromagnetic compatibility

During the year, electromagnetic compatibility analyses of 117 Bulgarian and 55 foreign VHF-FM radio broadcasting stations with the aeronautical systems ILS, VOR and COM were carried out.

In connection with securing of on-site electromagnetic compatibility and electromagnetic compatibility between the services, 89 assignments, including technical parameters, of radio transmission stations and 102 assignments, including technical parameters, of television transmission stations were examined and analysed.

Due to the identified possible interference while carrying out analysis for electromagnetic compatibility with aeronautical radio services, 26 radio frequency assignments were submitted for measurement under the Methodology for measuring A1 type intermodulation products generated by the operation of closely situated VHF-FM radio transmission stations.

2. Numbering

In order to ensure the necessary resource both in terms of existing and new networks and services, and in accordance with its powers, in 2012, the Communications Regulation Commission continued to analyse the use of all types of numbers and addresses and to prepare and apply measures ensuring the efficient use of the numbering resource. In this regard, the Commission updated the "Regulatory policy for the use of numbers, addresses and names for the provision of electronic communications" (Regulatory policy). The document contains the main goals and priority tasks set by CRC for the management of the numbering resource, as well as the short- and long-term actions which must be undertaken for their execution.

In performance of the Regulatory Policy, the Commission adopted amendments to Ordinance No. 1 of 2010 for the rules for use, allocation and the procedures under primary and secondary assignment for use, reservation and withdrawal of numbers, addresses and names (Ordinance) and Position on the transition to geographic codes with length up to three digits (Position).

The amendments to the Ordinance ensure a numbering resource for services using Machine-to-Machine (M2M) communication and regulate the use of numbers from the National Numbering Plan (NNP) starting with „1” to access services at national level. Moreover, the destination code 99X is equalized to the remaining access codes for digital mobile electronic communication networks and the provision of numbering resource to mobile virtual network operators (MVNO) is regulated by introducing requirements for the necessary minimal structure which the undertaking must possess in order to obtain a numbering capacity of its own. After the amendments were enforced, the NNP was updated accordingly.

In the Position, CRC has stated that the transition to geographic codes with length up to three digits will finally solve the problems in the regions with insufficient resource and will lead to an improvement in the effectiveness of use of the numbering resource of geographic numbers.

The consolidation of numbering areas is contemplated to take place through the transition of part of the five- and four-digit codes of the subscription numbering to three- or two-digit codes which will be determined by the first two digits of the existing codes. In this way, the nationally significant number is preserved, and the length of the code is reduced at the expense of a longer subscriber number. This will not affect the way of dialing the numbers, and respectively, end users, since closed dialing was introduced in March 2011 where each fixed telephone number is dialed with a prefix and code of the settlement.

In addition to the regulatory effects from this change, it will also have a positive effect for end users, as it will expand the region serviced by one geographic destination code within which end users may take advantage of their right to number portability.

The Commission reported that the transition to the new geographic codes of reduced length requires a technological time both for changes and settings in the networks of undertakings, and for preliminary explanatory campaign targeted at end users. In this relation and following a public consultation, the change was scheduled to take place within 18 months of the adoption of the Position by CRC (Decision No. 2018 of 04 October 2012), as it will enter into effect as of April 2014.

In the past year, two new undertakings were issued authorizations for the use of individually assigned scarce resource-numbers and the provision of fixed telephone services. Four authorizations for numbers were withdrawn. Two undertakings suspended their activity by their own will.

The total number of alternative undertakings providing fixed telephone services was 34 at the end of 2012.

During the year, the alternative undertakings providing fixed telephone service were assigned:

- 273,400 geographic numbers;
- 300 numbers for the “personal number” service (700);
- 300 numbers for freephone services (800);
- 1,300 numbers for value-added services (90);
- 1 access code for the “carrier selection” service;
- 17 addresses (15 national and 2 international signaling point codes).

The course of the number assignment process is displayed on Figure 56.

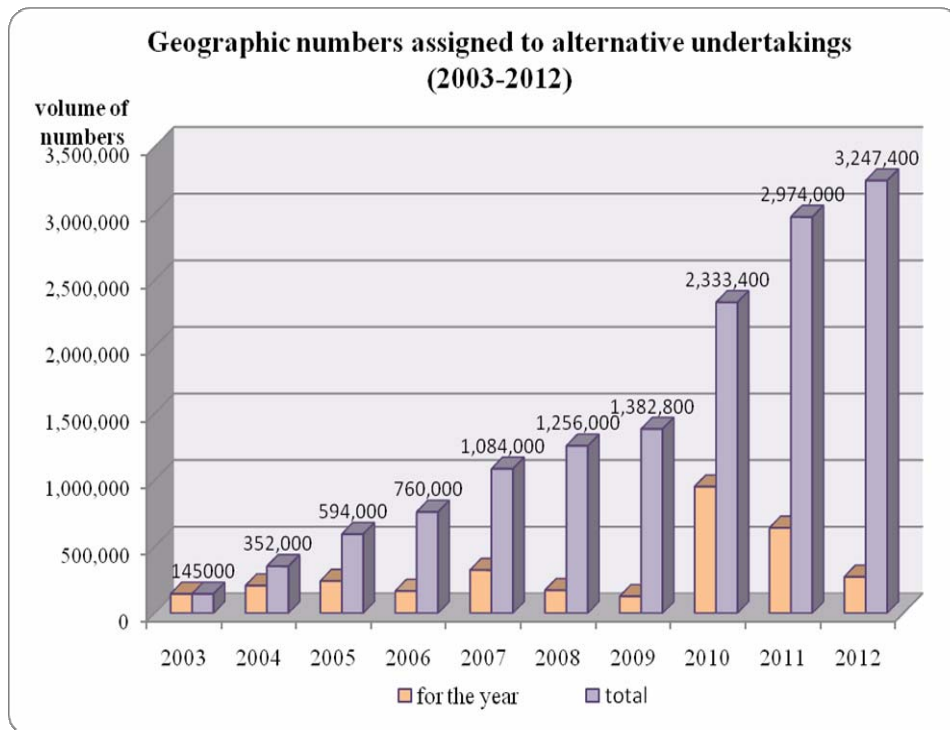


Figure 56

Alternative undertakings returned 25,300 geographic numbers, 1 international signalling point code, 2 national signalling point codes, 500 numbers for the "personal number" service (700) and 1,800 numbers for freephone services (800) due to optimized networks and services. Nevertheless, alternative undertakings provide and offer services in a growing number of settlements in our country.

The actual distribution of assigned geographic numbers at the end of 2012 is displayed on the figures below.

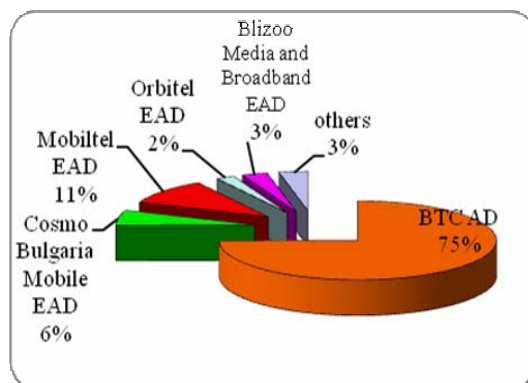


Figure 57

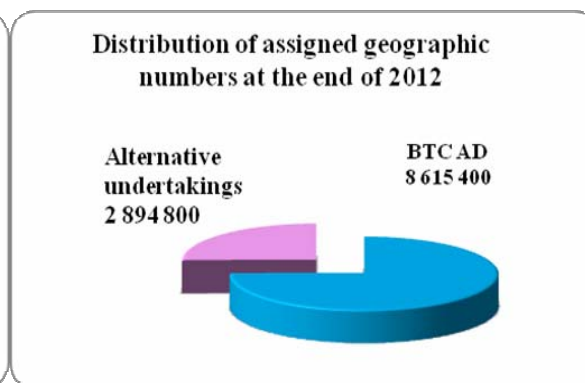


Figure 58

3. Number portability

In terms of number portability, the main activities of CRC were related to the review and amendment of the Functional specifications for portability of geographic, non-geographic and mobile numbers (functional specifications/FS), in order to implement the latest amendments and supplement to the Law on Electronic Communications (LEC) (prom., SG, issue 105 of 29 December 2011).

The amendments to the functional specifications (FS) follow the principles laid down in the 2009 Regulatory Framework, and cover issues related to number portability implementation which had occurred in practice. The main amendments pertain to simplification of the administrative procedures, which also allows for reduction in the number of days needed to port the number. In this regard, the porting times were shortened: for mobile numbers - from 7 to 2 working days, fixed numbers - from 7 to 3 working days for single numbers and from 10 to 5 working days for number groups, for non-geographic numbers - from 10 to 5 working days. In addition, the porting window was reduced from 7 to 5 hours for mobile and non-geographic numbers, and from 8 to 6 hours for geographic numbers. The other important changes in the functional specifications are related to improving the conditions for end users, such as:

- The subscriber and or user who has requested portability, is no longer required to:
 - ✓ has been a subscriber or user of the donor network for at least 3 months before filing an application for porting;
 - ✓ has paid all liabilities to the donor provider directly related to the ported number and the services used through it, the maturity date of which has occurred before the date of filing the application for porting;
 - ✓ has also paid all liabilities to the donor provider directly related to the ported number and the services used through it, which have occurred and/or have become exigible after the date of filing the application for porting until termination of the contractual relations; has paid all liabilities, all amounts due related to early termination of fixed-term contracts and/or contracts for leasing of terminal devices or equipment.
- The receiving operator, in case of non-payment of liabilities on part of the subscriber or user, no longer has the opportunity to impose restrictions on service usage or to pay their liabilities to the donor provider. In case of non-payment of liabilities on part of the subscriber or the receiving provider, the donor provider is no longer entitled to request postponement of the porting window date.
- The subscriber/user is given the opportunity to make an explicit written statement to start the porting procedure 7 days after submitting the application for porting. If there is no such statement, the porting procedure commences upon filing the application. This adds clarity to the application of Art. 228, Para 3 of LEC in cases of number portability.
- The contract between the receiving operator and the subscriber/user enters into force on the date when the number has been successfully ported into the network of the receiving operator.

In order to ensure greater opportunities for control on part of CRC over the portability processes, an option for giving mandatory instructions for amendment and supplement to the contents of the portability implementation procedures is envisaged.

The practical application of the new conditions introduced with FS requires an amendment to the portability procedures as well. In this regard, the specifications imposed obligation on the undertakings, within one month of their promulgation, to prepare, sign and present to the Commission amendments to the portability procedures. Despite the imposed deadline, no signed procedures were presented to the regulator, therefore CRC took actions to impose sanctions on all undertakings participating in the number portability.

In 2012, the trend towards increase in the number of ported numbers on both fixed and mobile networks was preserved, as it is clear from the following figures:

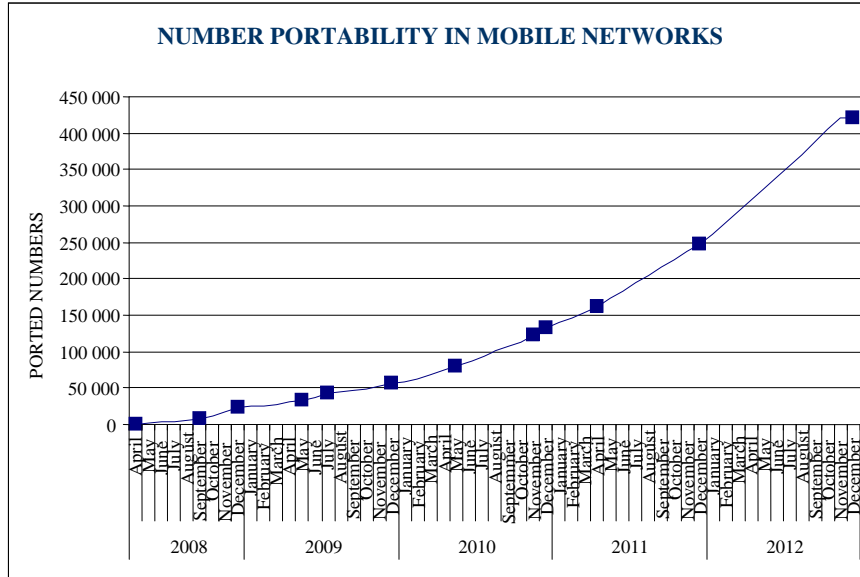


Figure 59

At the end of 2012, the numbers ported in mobile networks totaled 420,917, as their number grew by 49% against 2011. The total number of users who took advantage of their right to portability formed 3.48% of the total number of end users.

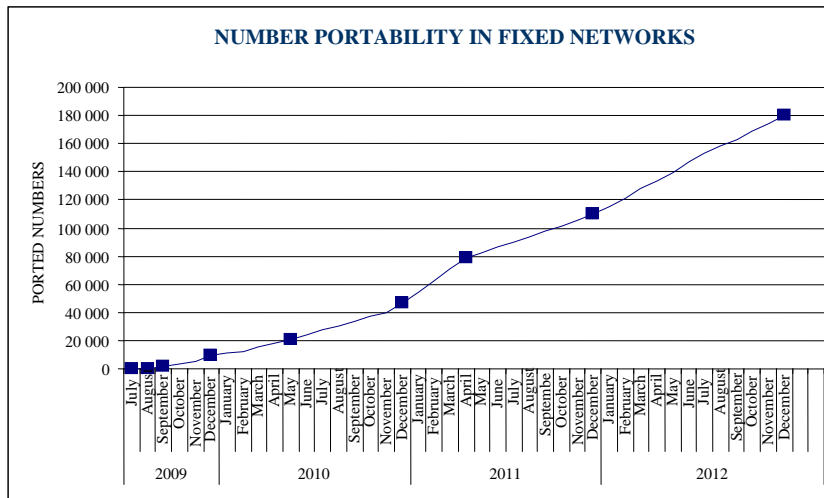


Figure 60

The numbers ported in fixed networks totaled 180,199 at the end of 2012, which represents 5.90% of the total number of end users. In 2012, the ported numbers grew by 10%, as compared to the year before.

As for non-geographic numbers, the ported numbers did not register a big growth. At the end of 2012, 22 numbers were ported.