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III. MANAGEMENT OF SCARCE RESOURCES

1. Radio frequency spectrum

In 2009, the CRC kept following the key goals, mechanisms and management approaches defined in its Regulatory policy for management of the radio frequency spectrum for civil needs. With regard to the radio frequency spectrum management, the key objective is to provide conditions for harmonized and effective use of the resource, which has been defined in the National plan for radio frequency spectrum allocation for civil needs. The spectrum management follows the principles of legality, predictability, transparency, publicity, access to advice, equality, proportionality, neutrality with regard to the used technologies and/or rendered services and reducing regulatory interference to the statutory minimum, as defined in the Law on Electronic Communications.

The provision of conditions for harmonized use of the radio frequency spectrum facilitates the implementation of common European services for the united European market, which, for its part, creates conditions for electronic communication services market development, for the reduction of the investment risk for undertakings and securing the fast introduction of new technologies.

During the past year, the CRC amended and supplemented the following secondary acts related to the management of the frequency resource:

- Technical requirements for mobile terrestrial network operation and all related equipment;
- Technical requirements for the operation of electronic communication networks from a mobile radio service and all related equipment;
- Technical requirements for the operation of electronic communication networks from a stationary radio service and the related equipment;
- Technical requirements for the operation of electronic communication networks from an amateur radio service and the related equipment;
- Technical requirements for the operation of electronic communication networks from radio services of the stationary-satellite, mobile-satellite type and the related equipment;
- The general requirements for the provision of public electronic communications;
- The regulations for the implementation of electronic communications for own needs through radio equipment, using a radio frequency spectrum, which does not need to be separately defined and the List of radio facilities that use radio frequency bands that are harmonized within the European Union and the terminal electronic communication devices.

With the amendments and supplements to these acts, the CRC continued to provide conditions for use of the radio spectrum in a harmonized, efficient and harmless in terms of radio interference manner and, depending on national specifics, to apply the decisions and recommendations of the European Commission and the Electronic Communications Committee of the European Conference of Postal and Telecommunications Administrations.

In view of executing the regulations of Decision 2007/344/EC of EC regarding the harmonized accessibility of the information on the use of the radio frequency spectrum in the Community and in light of the amendments of the abovementioned subordinate legislations, subject to an update in 2009 were the data for the utilization of Bulgaria's frequency resource in the ECO Frequency Information System (EFIS) of the European Communications Office.

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

The CRC carries out the allocation, planning, provision and securing the terms for efficient use of the radio frequency spectrum in accordance with the Radio regulation and the recommendations of the International Telecommunications Union, the decisions and recommendations of the Electronic Communications Committee to the European Conference of Postal and Telecommunications Administrations and the decisions of the EC.

In 2009, the Technical requirements for the operation of mobile terrestrial networks and the related equipment, and the Technical requirements for the operation of electronic communication networks from a stationary radio service and the related equipment incorporated the conditions for use of the radiofrequency spectrum, the technical parameters and radio equipment included, from Broadband Wireless Access Systems (BWAS) both for fixed and mobile applications.

This transposed into Bulgaria's legislation Decision 2008/411/EC of the EC regarding the harmonization of the 3400-3800 MHz radio frequency band for terrestrial systems that allows the provision of electronic communication services in the Community, with which a flexible and neutral operation of the frequency resource in the 3400-3800 MHz range was made possible.

The Commission launched a new procedure on the amendment and supplement of the Technical requirements for the operation of mobile terrestrial networks and the related equipment, which aims to transpose the regulations of Directive 2009/114/EC of the European Parliament and the Council for the amendment of Directive 87/372/EIC of the Broadband Council, which will be stored for the coordinated introduction of pan-European terrestrial cellular mobile communications in the Community and the regulations of Decision 2009/766/EC of the EC regarding the harmonization of the 900 MHz and 1800 MHz radio frequency bands for terrestrial systems for the provision of pan-European electronic communication services in the Community.

With the amendment of the Rules for the provision of electronic communications for own needs through radio equipment using a radio frequency spectrum, which does not need to be individually defined and the List of radio equipment that uses radio frequency bands and the terminal electronic communication devices that are harmonized within the European Union, the following decisions of EC were reflected in Bulgaria's legislation: Decision 2009/381/EC for the amendment of Decision 2006/771/EC regarding the harmonization of the radio frequency spectrum for the use of low-range devices, Decision 2009/343/EC for the amendment of Decision 2007/131/EC for the authorization of the radio frequency spectrum for devices using hyper broadband technology in a harmonized way in the Community and a Decision 2008/671/EO regarding the harmonized use of the radio frequency spectrum in the 5875-5905 MHz frequency band for safety-related applications of the intelligent transport systems.

In its work, the CRC strives to offer conditions for the application of EC decisions on the harmonization of the radio frequency spectrum. However, Decision 2005/928/EC of EC for the harmonization of the 169.4-169.8125 MHz frequency in the Community (the ERMES band), amended with Decision 2008/673/EC and Decision 2008/477/EC of the EC for the harmonization of the 2500-2690 MHz frequency band for terrestrial systems, which allow the provision of electronic communication services in the Community are yet to be transposed in the Bulgarian legislation. The reasons behind this are that the radio frequency bands are used for the needs of national security and defense, and their release is related to the necessity of target funds from the state budget to design new electronic communication networks and the respective purchase of new equipment for the needs of national security.

With Decision 2009/1/EC of the EC for the provision of derogation at the request of the Republic of Bulgaria in accordance with Decision 2008/477/EC for the harmonization of 2500-2690 MHz radio frequency band for terrestrial systems, which allow the provision of electronic communication services in the Community, Bulgaria was granted a transitional period for its application, which is valid until December 31, 2009 for North Bulgaria and December 31, 2010 for South Bulgaria.

Later on, the Republic of Bulgaria informed the EC that due to the unexpected decline in 2009 budget revenues as a result of the economic crisis, the required financial resources were not available for the release of the 2500-2690MHz radio frequency band within the terms specified in Decision 2009/1/EC for the distribution and supply, on the principle of non-exclusivity, of terrestrial systems that allow the provision of electronic communication services. Therefore, this radio frequency band is still exclusively occupied by mobile electronic communication equipment serving national security needs. In this regard, in a 25 November 2009 letter, the Republic of Bulgaria requested an extension of the previous derogation term, granted with a Decision 2009/1/EC, with another year. The Bulgarian administration submitted a progress report on the application of Decision 2008/477/EC, by which the EC was informed that the required non-financial preparation measures for the application of Decision 2008/477/EC were taken and that in 2010 the required funds would be granted for the implementation of the new system for mobile radio communications which would be used for national security purposes. On completion of the coordination procedure among interested state authorities and agencies, the CRC assigned alternative radio frequency bands for the use of the national security services for the construction of a new radio communication system that will replace the existing one in the 2500-2690 MHz radio frequency band.

The lack of funds and the failure to reach an agreement on the allocation of the spectrum for civil needs and for the needs of national security among the individual state authorities and services using a radio frequency resource are reasons for the still incomplete harmonization of the National radio frequency spectrum allocation plan with the European frequency allocations – both in terms of radio services and users. It has not been updated since 2006 which - taking into account the quick development of the electronic communication sector - appeared as an obstacle for the provision of frequency resource for civil use, conditions for the implementation of new technologies, ensuring more effective use of the frequency resource, as well as for the development of a competitive electronic communication sector and implementation of conditions for the development of a single common European market. For historic reasons, the state authorities and services are a significant user of frequency resources and its release for civil needs is related to the provision of targeted funds into the state budget for the modernization of the existing communication means used for national security and defense purposes, as well as for the purchase of new ones, which impede the CRC from providing the frequency resource for civil needs.

As an example, one can point to the need to release a frequency resource for the needs of terrestrial digital radio broadcasting. The bulk of the resource assigned for the second phase of the transition from analogue to digital television radio broadcasting (DVB-T) in the Republic of Bulgaria is used by the Ministry of Defense, due to which the second phase can successfully be implemented on the release of this frequency resource.

In 2009, the Technical requirements for the operation of electronic communication networks from a mobile radio service and the related equipment were amended and supplemented. The conditions for the operation of the electronic communication network from air mobile radio service in the 118-137 MHz frequency band were defined in them.

On finalizing the review and analysis of the decisions and recommendations of the Electronic Communications Committee concerning the use of the radio frequency spectrum and with regard to the ability for their application in Bulgaria, a report on their domestic application was sent to the European Communications Office.

Mobile radio service

In relation to an application submitted to the CRC for the issue of a temporary permit for use of an individual assigned scarce resource – a radio frequency spectrum, COSMO BULGARIA MOBILE EAD was allowed to use the 1940-1945 MHz and 2130-2135 MHz frequency bands,

10 MHz in total, for testing new technical methods and technologies for the implementation of electronic communications to help enhance the operator’s UMTS network efficiency.

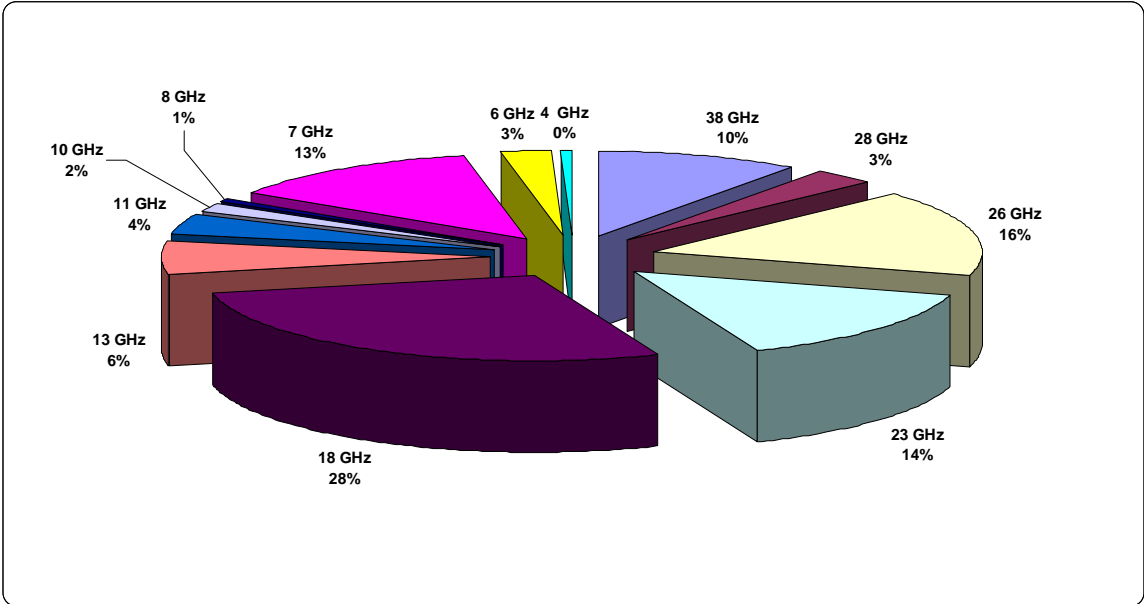
On completing an analysis on the radio frequency spectrum provided for use, and after national coordination and agreement on the radio frequencies and radio frequency bands with all interested state authorities, institutions and agencies, and operators, a total of 249 radio frequencies were provided for the implementation of electronic communications for own needs through the electronic communications network from a terrestrial mobile radio service - PMR (Private Mobile Radio).

Stationary radio service

During the year, various undertakings were granted frequencies for 3832 radio relay links and, thus, their total number exceeded 13 220. The upward trend in the number of radio relay links continued, and, respectively, an acute spectrum shortage was registered for the stationary radio service, especially in the 10 GHz frequency bands, which enable the establishment of long distance radio links. Authorizations were granted for the use of a radio frequency spectrum in these bands for building networks with total digital capacity of up to 930 Mbit/s in one direction. Such high-tech radio relay links require strict observation of the requirements for effective use of the radio frequencies and the technical requirements for operating an electronic communications network from a stationary radio service and the related equipment.

Finally, the 1.4GHz and 15GHz frequency were released from applications for networks from a stationary radio service for civil needs.

The relative share of radio relay links to their total number in radio frequency bands at the end of 2009 is indicated in figure 81.



Source: CRC

Fig. 81

The trend for the implementation of high-tech digital systems with synchronized digital hierarchy (SDH) with capacity from 1x55 Mbit/s to 6x155 Mbit/s and use of the XPIC/CCDP/ACCP technologies continued where the number of RRLs using these systems reached 149 at the end of 2009 compared with 79 in 2008.

A growing part of the transmission was due to the high frequency bands. The total number of RRLs in the 18GHz band reached 3702 compared with 3222 in 2008, which represented an

increase of their share to 28% from the RRL total count. The development of high density electronic communication networks in the high-frequency bands continued. At the end of the year, the radio relay links in the 26 GHz, 28 GHz and 38 GHz bands, with the authorization for radio spectrum usage, were 3878, which in percentage terms represents 29.33% (compared with 25.4% at the end of 2008) of the total RRL number. This accelerated growth was due to the energy peculiarities of the high-frequency bands.

In 2009 appeared the trend for reducing the number of valid authorizations, especially in the 10.3-10.68 GHz band, where radio and TV broadcasting networks are placed. However, this provided the ability for the application of a more intensive frequency broadcasting of Recommendation CEPT/ERC/REC 12-05, Annex A of the European Conference for Postal and Telecommunications Administrations, which allowed the application of networks with digital speeds of 4 Mbits to 4x34 Mbit/s and the reduction of the load in the 10.7-11.7 GHz band from networks with single digital flows $n \times 155$ Mbit/s in the especially valuable mid-length sector where sections are between 6 km and 20 km long. Currently, these are the most problematic section lengths for all speeds.

The trend for accelerated development of the service provision through networks for broadband wireless access continued in the 3.4-3.6 GHz band. The final application of the technologies organized as a duplex connection of the TDD type accelerated the widespread implementation of base stations under the WiMax technology with a 10 MHz broadcasting band in one direction, owing to which their number raised more than twice compared to 2008.

The systems for fixed wireless access (FWA), in their part for local multipoint distribution systems (LMDS) with a 28MHz band in the 26GHz range saw widespread development. Although through these authorizations the undertakings were entitled to use an individual assigned scarce resource – a radio frequency spectrum for the implementation of public electronic communications neutral in respect to the technology used within the territory of the Republic of Bulgaria, which presupposed the deployment of networks of the “point-to-point” type, during the year part of the provided radio frequency spectrum in the 26GHz range was reduced or refused to some undertakings. As a result, the released frequency resource may be used for the issuance of authorizations for the use of a radio frequency spectrum from networks for fixed wireless access with a territorial range other than the national provided that it is technologically neutral.

Satellite radio services

In 2009, the main activity related to the regulation of satellite radio services was directed toward the coordination of satellite systems aimed at the protection against potential interferences of Bulgaria’s position on geostationary orbit 56.02° E, specified as the national system from a fixed satellite radio service. In accordance with the procedures of the International Telecommunications Union, actions were undertaken to transform this position from allocation to assignment, as in this way it will be able to set the deadlines for satellite launch and its commissioning on the go. At the same time, the activities on securing protection for the second Bulgarian position at geostationary orbit 1.2°W, intended as a national system from a radio broadcasting-satellite radio service continued. The essence of the processes on the coordination of satellite systems is in averting potential interferences in the Bulgarian positions at the geostationary orbit and on the territory of Bulgaria, which may be caused by the commissioning of other satellites in orbit.

Last year, in relation to Decision No. 626/2008/EC of the European Parliament and the Council concerning the selection and issuance of authorizations for the systems providing mobile satellite services, the Community performed a comparative procedure for a general selection of mobile satellite system operators, which use the 2GHz range. As a result, with a Decision 2009/499/EC of the EC concerning the selection of operators of common European systems, providing mobile satellite services Inmarsat Ventures Limited and Solaris Mobile Limited were

assigned as operators of mobile satellite systems, entitled to provide mobile satellite services within the territory of the Community. For this purpose, with a Decision 2009/449/EC these undertakings were granted the right to use the following radio frequency bands: 1980-1995 MHz/2170-2185 MHz - to Inmarsat Ventures Limited and 1995-2010 MHz/2185-2200 MHz – to Solaris Mobile Limited. In this relation, an analysis was performed on the need to amend the subordinate regulations to allow the application of the regulations related to Decision 2008/626/EC and Decision 2009/449EC in the country.

Radio broadcasting

Analogue radio broadcasting

In 2009, the CRC provided 1 frequency channel to a provider offering electronic communications services through nationwide terrestrial analogue television broadcasting networks for expanding and improving the network coverage, as well as 17 frequencies to undertakings providing electronic communications through a nationwide terrestrial analogue radio broadcasting network. In relation to the request of the Council for electronic media, an investigation was carried out and information was provided for the presence of 5 frequencies, including technical parameters, admissible powers, points of broadcasting, as well as other technical information for the cities of Sofia, Dolna Mitropoliya, Botevgrad, Pravetz and Etropole.

According to the provisions of Art. 5, para. 2 and para. 3 of the LEC and in accordance with the Rules for the order of issuance of authorizations for the use of individual assigned scarce resource – radio frequency spectrum for the implementation of electronic communications through electronic communication networks for terrestrial analogue radio broadcasting of television signals, adopted by the Commission, the CRC granted five undertakings a total of 101 television channels – 58 channels to TV SEDEM EAD, 25 to PRO BG MEDIA EOOD, 15 to M. SAT TV EOOD, 2 to TELEVISION EUROPE AD and 1 channel to EUROCOM – NATIONAL CABLE TELEVISION. According to the issued authorizations, the undertakings were entitled to perform electronic communications until their frequency resource becomes necessary for the implementation of the terrestrial digital electronic communication network, but no later than on 31.12.2012.

A total of 108 technical characteristics of electronic communications terrestrial analogue radio broadcasting networks were examined and analyzed, of which 21 were from undertakings authorized to use individual assigned scarce resource – a radio frequency spectrum for the provision of electronic communications through nationwide electronic communications terrestrial analogue broadcasting networks, and 87 – to undertakings authorized to use individual assigned scarce resource – radio frequency spectrum for the provision of electronic communications through a local electronic communications terrestrial analogue broadcasting network. Another 77 technical characteristics of undertakings authorized to use an individual assigned scarce resource – radio frequency spectrum for the provision of electronic communications through an electronic communications terrestrial analogue television broadcasting network were examined, where 4 of them were of undertakings providing nationwide electronic communications services, and 73 – from undertakings providing local electronic communications.

Digital radio broadcasting

The adoption of the Bill on amendments and supplements to the Law on Radio and Television, the Bill on amendments and supplements to the LEC and the amendments and supplements of the Plan for the introduction of terrestrial digital television radio broadcasting (DVB-T) in the Republic of Bulgaria (the Plan) created conditions for the actual launch of the process for transition from terrestrial analogue television radio broadcasting to terrestrial digital television radio broadcasting. The plan was adopted with a decision under item 24 of Protocol No. 5 from the 1 January 2008 meeting of the Ministry of Councils and was amended and supplemented with a decision under item 35 of Protocol No. 11 of the 19 March 2009 meeting of the Ministry of Councils and decision under item 13 of Protocol No. 51 of the 30 December 2009

meeting of the Ministry of Councils. There were placed the strategic foundations for the implementation of the DVB-T networks and plan-schedule for decommissioning of analogue transmitters.

In accordance with Art. 48 of the LEC, the CRC has held two competitive procedures for the selection of undertakings which may obtain authorization to use individual assigned scarce resource – radio frequency spectrum for the implementation of electronic communications through electronic communications terrestrial digital radio broadcasting networks. As a result, TAURKOM BULGARIA EAD were granted the right to use television channels for the implementation of electronic communications through two national electronic communications networks for terrestrial digital radio broadcasting according to the First stage of the Plan, and HANU PRO BULGARIA EAD – for the implementation of electronic communications through three national electronic communication networks for terrestrial digital radio broadcasting, according to the Second stage of the Plan.

Each of the two undertakings must implement its networks in a way that the period for simultaneous broadcasting through the analogue and digital radio broadcasting network (“simulcast”) for the same area of channel servicing, which shall be mandatorily distributed in pursuance to the Law on Radio and Television, should be no longer than twelve months. The undertakings will equally treat the channels, foreseen for radio broadcasting through either of the networks.

The electronic communication networks for terrestrial digital radio broadcasting use MPEG-4 (Moving Picture Experts Group – 4) coded digital flow (audio / video / data).

1.2. National and international coordination

National coordination and agreement with all state authorities, institutions and services concerned is carried out with the goal to ensure aeronautical and maritime navigation safety and protection of national security, and to efficiently use the radio frequency spectrum. In 2009, in the Advisory council for national coordination and agreement to the CRC, 2274 radio frequencies and radio frequency bands were coordinated and agreed.

Upon requests received from foreign administrations, international coordination of radio frequency assignments of 11 foreign VHF-FM radio stations with the appropriate technical parameters, in accordance with the Regional Agreement relating to the use of the 87.5 - 108 MHz band for VHF-FM (FM) sound broadcasting, Geneva, 1984 (Geneva, 1984), was carried out. Objections were made to 18 frequency assignments in order to protect the Bulgarian broadcasting stations from interference. The Bulgarian administration agreed upon 3 analogue frequency assignments according to the regional agreement for the European area for radio broadcasting concerning the use of radio frequencies in VHF and UHF bands for radio broadcasting (Stockholm 1961), reviewed in relation to the non-occupied analogue television broadcasting with the Regional agreement for the introduction of terrestrial digital radio and television broadcasting in the 174-230 MHz and 470- 862 MHz frequency bands, Geneva 2006. (Geneva-2006).

In accordance with Geneva 2006, 45 radio frequency assignments were coordinated as well as the relevant technical parameters for terrestrial digital television radio broadcasting (DVB-T) upon requests submitted to foreign administrations.

Two-week circulars for 2009 of the ITU Radiocommunication Bureau (ITU-R) related to the international information on frequencies BR IFIC (BR International Frequency Information Circular) for terrestrial radio services were processed and analyzed. In this respect, 316 frequency assignments to foreign administrations were coordinated under Geneva-1984 and 1 under the

Regional agreement concerning the use of frequencies from radio service broadcasting LF (150-285 kHz) and MF (525-1605 kHz) bands in Region 1 and 3 and in LF (150-285 kHz) band in Region 1 (Geneva 1975). Only one objection was made for 1 radio frequency assignment under Geneva 1984.

The Bulgarian administration approved 108 radio frequency assignments and the relevant technical parameters of DVB-T transmitters of foreign administration and for 274 radio frequency assignments of other radio services at basic foundation under Geneva 2006. Foreign administrations objected to 45 radio frequency assignments of DVB-T transmitters.

The Bureau of radio communications has received a request for the introduction in Plan Geneva 1984 of 81 radio frequency assignments of Bulgarian VHF-FM radio stations, as a result of which 49 radio frequency assignment were delivered in the plan.

After the international coordination, the radio frequency allocations for the Republic of Bulgaria were converted into radio frequency assignments for the relevant allotments. As a result, in the digital broadcasting plan Geneva 2006 radio frequency assignments and the corresponding technical parameters of 198 Bulgarian DVB-T transmitters were recorded. After the international coordination with the digital plan of Geneva 2006, 3 individual radio frequency assignments were added for the Plovdiv – city servicing zone.

The frequency assignments for satellite networks or terrestrial stations of all two-week BR IFIC circulars for the space radio services were processed and analyzed. As a result of the technical studies and calculations carried out, correspondence with the ITU and the concerned foreign administrations was conducted in order to protect Bulgarian assignments for terrestrial, satellite and space radio services from interference. For 2009, the Bulgarian administration has sent 13 objections to the International Telecommunications Union and to administrations, whose satellites might potentially affect Bulgaria.

1.3. Electromagnetic compatibility

In 2009, electromagnetic compatibility analyses of 167 Bulgarian and 300 foreign VHF-FM broadcasting stations with the aeronautical navigation systems ILS, VOR and COM were carried out.

In connection with the provision of the on-site electromagnetic compatibility and the radio services electromagnetic compatibility, 108 technical characteristics of radio broadcasting stations and 77 technical characteristics of television broadcasting stations were examined and analyzed.

Due to the identified possible interference while carrying out electromagnetic compatibility analysis with aeronautical radio services, 40 measurements were made under the Methodology for measuring A1 type intermodulation products generated by the operation of closely situated VHF-FM radio broadcasting stations.

2. Numbers and addresses

The CRC is responsible for the management of the National Numbering Plan, which is related to the analysis of the use of all types of numbers and codes, for establishing and implementing a policy that ensures the efficient use of the numbering resource and capabilities for identifying bands of numbers for new services and networks.

During the year, an amendment to the National Numbering Plan of the Republic of Bulgaria was made, which reflected the release of bands “83” and “85” and their reservation for future use (promulgated in the State Gazette, issue 14 from 20.02.2009). The adjustment of issued licenses that were replaced by licenses for the use of individual assigned scarce resource-numbers

in accordance with Art. 107 of the LEC was completed in accordance with the LEC. Four new licenses for the use of individual assigned scarce resource-numbers were issued.

During this period, the alternative operators providing fixed phone services have been provided with 126 800 geographic numbers, 2100 numbers with an Access code to the “Personal number” (700) service, 2000 numbers with an access code to value added services (90), 3 numbers for access to telephone reference services – 118XY and 37 addresses (36 national and 1 international signaling point codes).

About 7000 geographic numbers and 1000 numbers with an access code to value added services (90) were returned.

In 2009, alternative operators continued to develop their networks and increase the number of their subscribers, which is confirmed by the numbering resource assigned to them. This is a precondition for the expansion of the competition and provides potential for successful introduction of number portability in fixed networks. Despite that trend, their share in the fixed voice services market is still low. On the other hand, the return of numbers indicated that the alternative operators are facing obstacles in the development of their networks in specific regions.

Table № 16

| Year | Assigned numbers to alternative operators |
|---------------|--|
| 2003 | 145 000 |
| 2004 | 207 000 |
| 2005 | 242 000 |
| 2006 | 166 000 |
| 2007 | 324 000 |
| 2008 | 172 900 |
| 2009 | 126 800 |
| Total: | 1 383 700 |

As a result of the digitalization process of the fixed phone network of BTC AD and the improved efficiency of utilization of the scarce number resource, in 2009:

- a resource of a total of **1 375 800** numbers in different geographic regions in the country was released;
- a total of **413 000** numbers have changed from incomplete to full length of the national significant number.

Moreover, 3 short numbers for access to regional services with first digit 1 were released.

Changes were also made to the **List of geographic codes of numbering regions in the Republic of Bulgaria**, expressed in a change or closure of some settlement codes.

2.1. Number portability

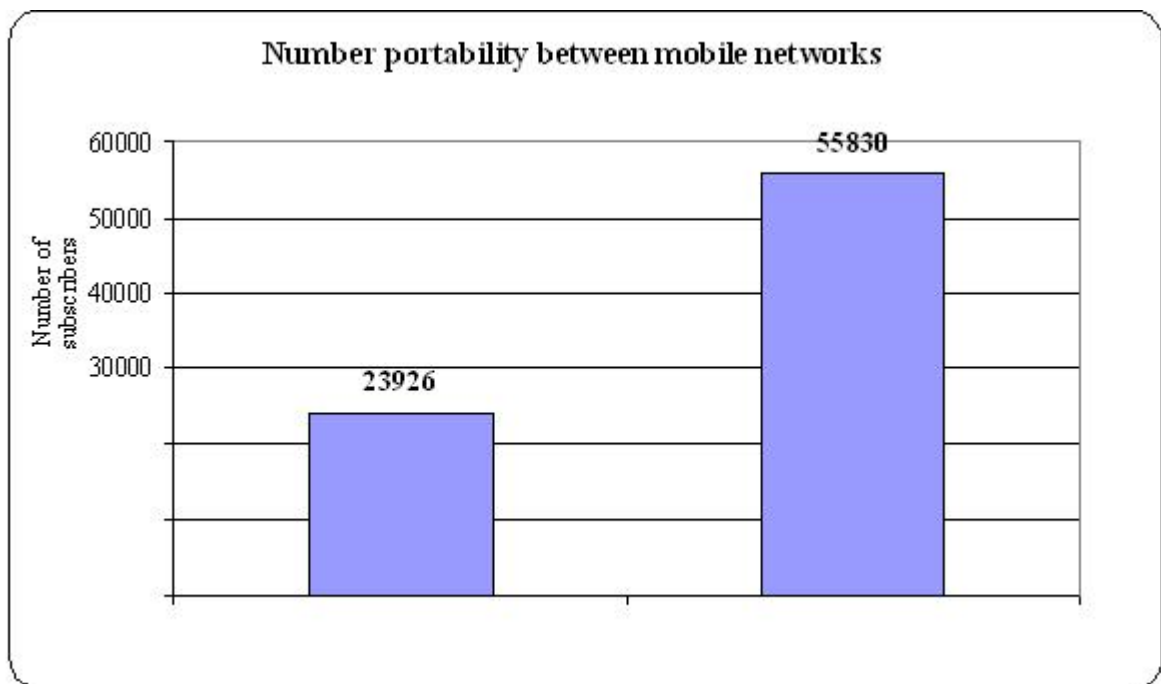
The number portability is considered one of the regulatory instruments, through which the development of an effectively operating competitive market is ensured, which would allow users to make the best selection in relation to quality and price. That is why one of the main priorities of the CRC activity was the introduction of geographic and non-geographic number portability and the improvement of conditions for provision of portability between mobile networks.

Numbers portability in mobile networks

In 2009, the CRC continued to monitor the development of the number portability

between mobile networks that was launched in April 2008. Since the implementation of portability is a dynamic process, which is subject to development, it was of significant importance for its improvement that the Commission be informed on the issues, with which the users were faced. In this relation, once every three months mobile operators were required to submit data about the number and character of received complaints, as well as for the quality of transmitted numbers.

For the period from portability launch until the end of 2009, the transmitted numbers were 55 830, which represented 0.5% of the total number of active subscribers – 10 575 700. The increase of the number of transmitted numbers is represented in the graph below.



Source: Data submitted to the CRC

Fig. 82

In the analysis of complaints it was found that the user's issues related to the duration and contents of the voice communication, with which the mobile operator informed their subscribers that the number they called, had been transmitted. In this regard and in view of the compliance with the single approach principle adopted by the CRC when determining the obligations of suppliers, providing mobile and fixed services and synchronization of processes when implementing the portability in mobile and fixed networks, the Commission amended the Functional specifications for the implementation of portability of nationally significant numbers upon change of an operator providing public mobile telephone service (State Gazette, issue 26/07.04.2009). On the grounds of Art. 21, para. 2 of the Functional specifications for the implementation of portability of nationally significant numbers upon a change of the operator providing public mobile telephone services, the Commission with a Decision No. 453 from 19 May 2009 assigned a single sound signal that notifies end-users when calling a transmitted number, which was applied by all operators. According to the decision, operators had to implement the signal and to make it public for their users by 1 August 2009. Two of the operators did not fulfill their obligations within the specified period, due to which the Commission undertook actions on levying a property sanction in the amount of BGN 500 to 10 000 per week. The entities that represented the operators were charged BGN 50 to 1000.

The advanced execution of the CRC Decision No. 453/19.05.2009 was appealed by MOBILTEL EAD. As a result, the single sound signal was introduced on 1 November 2009 after the court approval of the final advanced execution of the decision.

Geographic number portability

In 2009, negotiations between the operators for the preparation of a Procedure for geographic number portability (Procedure), which was regulatory established condition for the launch of the portability process, continued. Despite that the Commission participated as a mediator, the undertakings did not reach an agreement for the Procedure's contents. In this regard and on the grounds of Art. 38, para. 2 of the Functional specifications, with a CRC Decision

No. 191 from 09.03.2009 it was assigned the particular sound signal by which end-users would be notified in case of a call to a transmitted number.

The decision for the adoption of a binding statement was appealed by BTC AD, as well as by part of the alternative operators before the SAC. However, the appeal did not preclude the execution of the decision due to the preliminary execution set, which was confirmed by the court as well. In this regard on 19.03.2009, the Commission ordered all undertakings obliged to provide portability of geographic numbers to submit a signed common Procedure within seven days. Despite the binding statement and the imposed period, CRC was not provided with the required signed common procedure.

Taking the importance of the issue into account, as well as the fact that for the time being the number portability for the fixed networks were not launched, the CRC decided that there were reasons for sending an invitation for voluntary execution to all obliged undertakings on the grounds of Art. 277, para. 1 and para. 2 of the Administrative Procedural Code. Invitations were sent on 29 April 2009. It was indicated in them that within 14 days considered from their receipt, the undertakings had to sign the common procedure in pursuance of CRC Decision No. 125 from 09.02.2009. In case of non-fulfillment of this obligation and on the grounds of Art. 287, para. 1 of the APC, the Commission was engaged to undertake actions on imposing property sanctions to undertakings in the amount of BGN 500 to 10000 per week, at the same time with a penalty of BGN 50 to 1000 per week for the entities that were representing them.

As a result of the abovementioned actions, the undertakings reached an agreement and on 14 May 2009 the signature of the common procedure for geographic numbers portability was completed.

On 17 June 2009, a meeting was held for the specification of the last details concerning the mutual connection of networks and the technical readiness of the undertakings in which the Commission also took participation. As a result, the geographic number portability was launched on 1 July 2009.

After launching the portability, the CRC was monitoring the process and execution of the functional specifications for the implementation of geographic numbers portability upon change of the operator providing fixed telephone services and/or upon change in the address within one geographic national code for direction, in order no obstacle conditions for the portability to be introduced by the undertaking. With the cooperation of the Commission, a problem was resolved related to the provision of subscribers and users right to submit an application for the portability in all own customer service centers in settlements where the undertakings were part of the portability domain.

A total of 9558 numbers were transmitted during the six months until the end of 2009, which represented 0.45% of the total number of valid telephone posts (2 134 866);

In order to facilitate users, the CRC publishes and periodically updates on its webpage a list of geographic codes, in which portability implementation was available and suppliers with numbers provided in the relevant geographic codes and a list of geographic codes, in which number portability was available from and to the BTC AD network. From the beginning of the portability until the end of 2009 as a consequence of network digitalization of BTC AD, the number of geographic codes, in which portability was possible from and to the corporate network, were increased from 129 to 1297. Only in 167 of them, there were one or more alternative undertakings. This showed that the portability implementation was possible for a significant number of codes; however, the alternative undertakings were still not participating in

the relevant portability domains.

Portability of non-geographic numbers from 700, 800 and 90

In relation to the introduction of portability for non-geographic numbers, the CRC prepared and adopted Functional specifications for the implementation of non-geographic numbers portability in the event of an operator change, providing the relevant service, promulgated in SG, issue 4 from 16.01.2009. Undertakings that were participating in the non-geographic numbers portability domain did not reach an agreement within the regulatory specified period of 45 (forty-five) days and it was additionally extended with 10 more days. Due to failure to reach an agreement and after this period, the CRC was requested to give an opinion on the binding statement according to Art. 24, para. 2 of the Functional specifications for the implementation of non-geographic numbers portability upon change of the operator providing the relevant service. After an analysis of the motives stated by undertakings was made, the Commission, with Decision No. 1303 from 22.10.2009 adopted a binding statement on the issues, for which the undertakings have not reached an agreement. The decision specified by the Commission was appealed before the SAC by BTC AD, MOBILTEL EAD and COSMO BULGARIA MOBILE EAD.

Meanwhile, in September 2009, the CRC has offered for public discussion the bills on amendments and supplements of the Functional specifications for numbers portability between mobile networks, for geographic and non-geographic numbers alike. The amendments and supplements proposed were focused on the transmission from administrative servicing of “two desks” to servicing of “one desk”, a lesser period for portability and implementation of a single sound signal for the notification of users in case of a call to transmitted number. With the proposals made, it was offered relief to the portability process and better protection of the interests of subscribers and users of electronic communication services. The results from the public discussion were summarized, whereas additional consultations were conducted on the proposals concerning material changes in the Functional specifications.