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DEVELOPMENT BUREAU**

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Annual Report  
of CRC  
for 2005

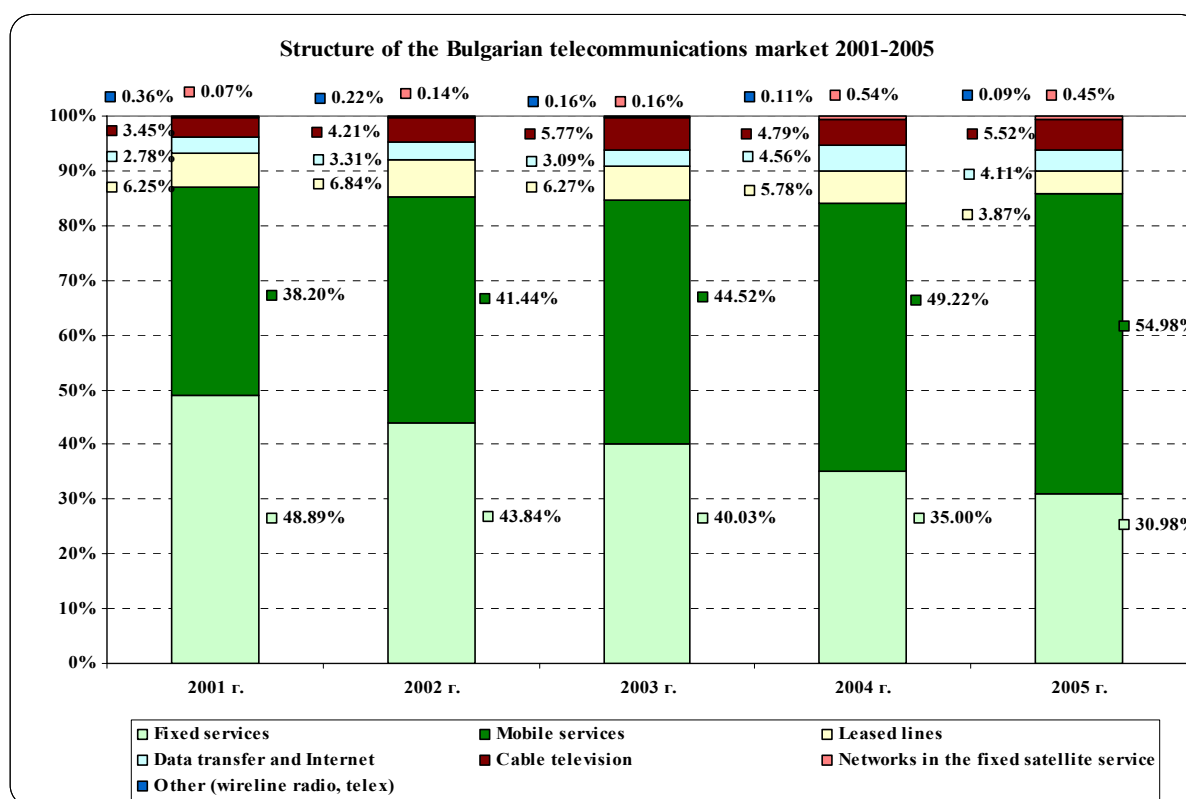
# I. STATE, DEVELOPMENT AND PROSPECTS FOR THE TELECOMMUNICATIONS MARKET

## 1. Characteristics of the telecommunication services market

### 1.1. Volume and structure of the Bulgarian telecommunications market

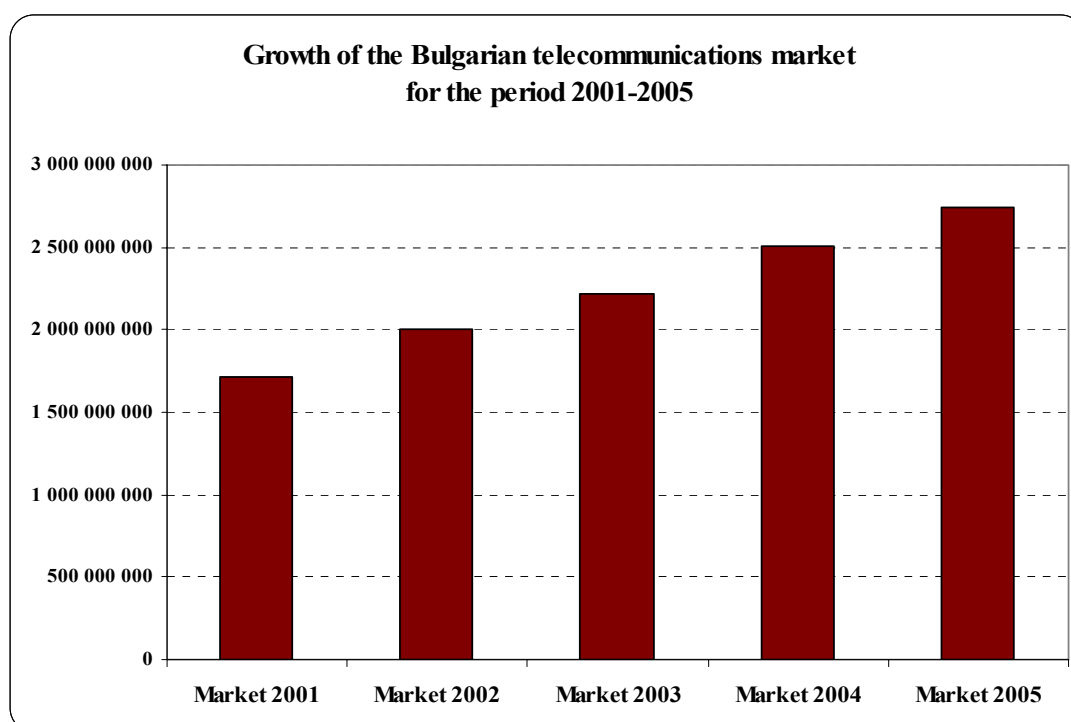
In 2005 the volume of the Bulgarian telecommunications market, estimated on the basis of the revenues realized from fixed services, mobile services, leased lines, data transfer and Internet, cable television, networks in the fixed service and other telecommunication services amounts to 2,744 bn BGN. or 1,403 bn Euro, which constitutes a 10% increase compared to the preceding year. For the sake of comparison, the increase in 2004 with respect to 2003 was 13% and that shows that despite of the continuing growth, the Bulgarian telecommunications market holds its development rate. For a second consecutive year the volume of the telecommunications market constitutes around 7% of the total Gross Domestic Product (GDP) of the country, and that is an indicator that the telecommunications sector preserves its importance for the economy.

Figures 1 and 2 present the structure and growth of the telecommunications market in the country for the period 2001-2005.



Source: Data submitted to CRC

**Figure 1**



*Source: Data submitted to CRC*

**Figure 2**

The analysis of the data makes possible tracing and outlining the basic trends in the telecommunications market development in recent years:

- There are two market segments, which have grown in 2005 compared to 2004: mobile networks and services and cable television. For all the remaining segments there is a hold or a slight reduction in the revenues from services provision.

- In 2005 relative to the preceding year, the share of the revenues from mobile services continues to grow – with nearly 6 points for a one-year period, and the share of the fixed services continues to decline – with 4 points.

- Leased lines feature fluctuations: after revenue growth of 4% in 2004, in 2005 there is a reduction of nearly 27% and reaching the level of 2001.

- Following growth in the segment “data transfer and Internet” for the period 2001-2004, expert estimates by CRC show a hold of the volume for the last year. (Regarding the revenues from “data transmission and provision of Internet access services”, more conservative expert estimate has been applied relative to previous years.)

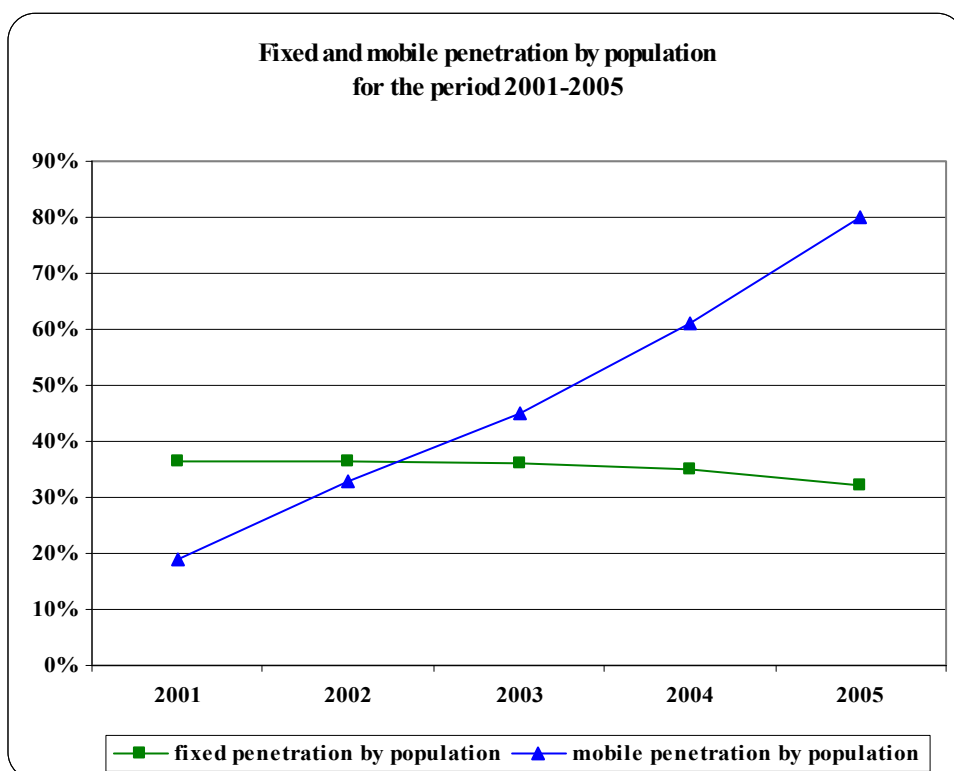
- In 2005 the revenues from networks in the fixed satellite service and other telecommunication services (wireline radio distribution and telex) decline with equal rates – by 9% relative to 2004.

In 2005 the market of mobile networks and services in Bulgaria continued its rapid development. The revenues from that market segment have increased in absolute value by 22% and constitute more than half (55%) of the revenues from telecommunication services in the country as a whole. The increase in the revenues from mobile services keeps its level for a

second consecutive year. Competition continues to develop mainly between the two operators of digital networks, with retention of the leading position of “MOBILTEL”, expanding presence of the second GSM operator – “COSMO BULGARIA MOBILE” EAD, and nearly subsiding market presence of the first mobile operator in the country – RTC OOD. In November 2005 a new player emerged on the market – „VIVATEL”, which is a prerequisite to expect dynamics and redistribution of the operators’ shares on this market in 2006. The market of pre-paid mobile services and value-added services continues to develop and the Bulgarian users’ interest in services like “mobile Internet” and “multimedia messaging” begins to grow.

Despite of the 11 new licenses awarded to eight new operators during the year and the presence of nine active alternative operators on the market of fixed voice telephone networks and services, the relative share of BTC AD revenues from the provision of those services in 2005 remains too high (97,5%), which is an indicator of inefficient market competition. In 2005 the revenues from fixed telephone networks and provision of fixed voice telephone services decrease by 3% in absolute value and by 4% in relative value in the total market volume in comparison to the preceding year. This reduction results from the nearly 5% reduction in BTC AD revenues that is not compensated by the realized revenues of the alternative operators. The decrease in the revenues from fixed telephone networks and services can be attributed to the depopulation of the small settlements, migration to mobile operators, offering a wider portfolio of services and flexibility of their use, the provision of services by VoIP providers, the introduction of the ever more popular free PC-to-PC real-time transmission of voice over Internet, etc.

Figure 3 illustrates the recent trend of fixed-to-mobile substitution, expressed by the dynamics in the fixed and mobile penetration indicators. The popularity of mobile services among Bulgarian users continues to grow, causing smooth decline in the use of fixed services.



*Source: Data submitted to CRC*

### Figure 3

In 2005 the Communications Regulation Commission (CRC) awarded two new individual licenses for carrying out telecommunications through telecommunications network for provision of the “leased lines” service to “NOVATEL” EOOD and “SOFIA COMMUNICATIONS” AD. Nonetheless, in 2005 the revenues from provision of the “leased lines” service have fallen by 27% relative to the preceding year. This decrease can be explained by the fact that the telecommunication operators prefer to invest in building up their own telecommunication networks and extending their transmission capacity. In spite of the reported decline of about 10% by the end of 2005, the relative share of the former monopolist in the structure of the market remains over 95%, while the share of the competitive operators has increased by just 2%.

In 2005 52 new operators of public cable telecommunication networks were registered, 104 supplements to existing registrations were issued, and the number of ceased registrations is 49. This demonstrates that this segment of the telecommunications market has been saturated and restructured in favour of the bigger operators. According to an expert estimate of the CRC, the volume of the total revenues from that market segment is around 156 mln BGN, which is 30% more in comparison with 2004. In comparison to the preceding year, the number of operators that have stated revenues from coded programmes has increased by 34%, and those from Internet – by 48%. The service „provision of Internet access over cable networks for distribution of radio and television programmes” becomes increasingly popular in recent years, since it offers good conditions for always-on access at lucrative prices. In 2005 the so-called “triple play” continued its establishment on the Bulgarian market, with price discounts of some cable operators reaching up to 27% in comparison with standard prices.

In the previous years “data transfer” and “Internet access” were examined as separate segments of the telecommunications market in the country. Due to the ever increasing number of newly-registered service providers of Internet access (providing the service under free regime), in 2005 for the purpose of market analysis “data transfer and Internet” is considered as a common segment. It covers the provision of telecommunication services through public telecommunication data transmission networks, including those with individually assigned resource – numbers; through RLAN networks in the mobile service, through networks in the fixed service of the “point-to-point” type, as well as provision of Internet access under free regime by non-registered providers. According to an estimate of CRC, the volume of that segment has remained unchanged compared to the preceding year. Market logic suggests growth in the volumes, realized by networks for data transmission and Internet services, and the conservative estimate for 2005 is due primarily to a correction with respect to the estimates of previous years regarding the revenues of Internet service providers under free regime: it is difficult to assess what part of the market represent the providers that have not responded. In 2005 the trend of previous years of reduction in the number of Internet users of dial-up access continued, and presently, the most common technology for Internet access is cable, followed by LANs.

In 2005 the ADSL service of BTC AD, launched in 2004, gained great popularity. In just a year the number of subscribers to the service increased almost six times. Nevertheless, the demand and supply of broadband services is not widely spread. According to estimates of CRC, at the end of 2005 the penetration of that kind of services in Bulgaria was around 1%.

The investments in building and maintenance of networks and development of services, stated by the telecommunication operators, amount to around 945 mln BGN. The increase is over 60% relative to 2004 and is due primarily to investments made by the three mobile operators during the year, especially the new mobile operator “VIVATEL”, by the alternative operators and by the bigger cable operators.

## **1.2. Prospects for development of the Bulgarian telecommunications market**

The entry of new technologies and the provision of integrated services will result in expansion of the potential of the Bulgarian telecommunication market.

In 2005 tenders were organized and four licenses were awarded for networks of the type "point-to-multipoint". The winners "CABLENET" EOOD and "TRANS TELECOM" OOD were awarded Class A licenses (2×21 MHz), and the winners "NEXCOM BULGARIA" EOOD and "MOBILTEL" AD were awarded Class B licenses (2×10,5 MHz). The licenses are for a term of 10 years, and according to the license conditions, the operators are obliged to launch the service within a year since the issuance of the license, what gives grounds to expect a stir in the telecommunications market in Bulgaria in 2006. If based on the advanced broadband technology WiMAX, broadband networks of the PTMP type will allow fast transmission of large volumes of data and will be used for the provision of telecommunication services, such as voice transmission, high-speed Internet, multimedia applications, digital television, etc.

In 2006 intensive dynamics on the market of mobile communication may be expected. These expectations are based on the launch of the third digital operator at the end of 2005 and on the start-up of commercial activity of a TETRA operator. Following the issuance of three licenses for UMTS networks and services, in the next 1-2 years the Bulgarian user could benefit from 3G mobile services.

In 2006 the market of fixed telephone networks and provision of fixed voice telephone services is also expected to become more competitive. The new players are expected to develop their infrastructure and pose real competition in terms of the provision of fixed voice telephone services.

Strengthening of the positions of the big cable operators with deployed infrastructures and increased capacities, providing high-quality services and packages of integrated services, including television, high-speed Internet and voice telephony, is also expected. Following the European and global trends of convergence of networks and services, the bundled service „triple play” continues its extension on the Bulgarian market. The combined service is offered by "CABLETEL" AD and "EVROTUR SAT TV" AD. The mobile operators with licenses for the relevant telecommunication activities are expected to offer integrated packages of fixed voice telephone service, mobile voice telephone service and data transmission on the telecommunications market.

## **II. LEGAL AND REGULATORY FRAMEWORK**

In 2005 CRC continued the drafting of a legal and regulatory framework in compliance with the new tendencies in the development of telecommunications and harmonized with the European legislation in relation to the commitments undertaken by the Republic of Bulgaria to the European Union.

The amendments and supplements to the Telecommunications Act (TA) focus on several main issues:

- the obligation of the Republic of Bulgaria to transpose the requirements of Directive 97/33/EC in order to provide for the possibility for CRC to resolve disputes between telecommunications operators;
- public consultation procedure for all general administrative acts, adopted by CRC;

- possibility for change of the system for determination of the expenses of the significant market power operators.

### ***1. Further elaboration of the secondary legislation acts specified in the TA***

In 2005 amendments and/or supplements were adopted to some of the secondary legislation acts specified in the TA (regarding the fees collected by CRC, the operation of the telecommunications networks from the fixed radio service, the rules governing the construction of cable telecommunications networks and associated facilities, etc.). This made possible the finalization of the applicable legal telecommunications framework which provides the possibility for real creation and development of a liberalized market.

***2. In 2005 CRC adopted general administrative acts, related to*** the policy on the use of numbers, addresses and names, the management of the radio frequency spectrum, the terms and procedure for provision of special access to the fixed telephone network of an SMP operator, the calculation of the net losses of the public operators resulting from the provision of the universal telecommunications service and the provision of telecommunications through radio stations and radiolocation stations on board of ships and radio stations on board of aircraft.

***3. CRC issued three individual licences*** for provision of telecommunications through public mobile cellular networks - UMTS standard and four individual licences for provision of telecommunications through public networks from the fixed radio service of the type “point-to-multipoint”.

***4. Liberalisation of the telecommunications market of fixed public telephone networks and fixed voice telephone services*** and creation of possibilities for new alternative operators to enter the market.

CRC designated an SMP operator on the marked for fixed public telephone networks and fixed voice telephone services, as well as on the market for the provision of the “leased lines” service, as well as an SMP operator on the market of mobile telecommunications networks and provision of voice telephone services through them.

### ***5. Draft Act on Electronic Communications***

In 2005 CRC started working on the transposition of 2002 Regulatory Framework, in particular the elaboration of the Draft Act on Electronic Communications.

The main characteristics of the Draft Act transposing the Regulatory Framework on Electronic Communications relate to the powers of the National Regulatory Authority, the provision of electronic communications networks and services, the imposition of obligations on the SMP operators, the access and interconnection between the networks of the undertakings, protection of the interests of the users, data protection.

## **III. RADIO SPECTRUM MANAGEMENT**

In accordance with its legal competence and the Regulatory policy of management of the radio spectrum allocated for civil needs, adopted with Decision No. 1000 of 13 June 2005,

the CRC ensures conditions for optimal allocation and efficient use of the radio spectrum, avoiding harmful interference. That is also accomplished in accordance with the requirements of the decisions and recommendations of the International Telecommunication Union, the European Commission and the Electronic Communications Committee to the European Conference of Posts and Telecommunications, respecting the principles of transparency, non-discrimination, predictability, proportionality, objectivity and publicity.

#### ***Planning, assignment and efficient use of the radio spectrum***

- Radio spectrum of 2x20 MHz in the bands 1920-1940 MHz and 2110-2130 MHz, and radio spectrum of 3x5 MHz in the band 2010-2025 MHz is assigned for carrying out telecommunications through public telecommunication mobile cellular UMTS networks.
- In addition to the band 2400-2483.5 MHz, the bands 5150-5350 MHz and 5470-5725 MHz are assigned for carrying out telecommunications through public RLANs of the mobile service.
- Frequency resource of 2x63 MHz in the band 3.4-3.6 GHz is reallocated, re-planned and assigned for carrying out telecommunications through public telecommunication networks of the fixed service of the type “point-to-multipoint”.
- Between the two sessions of the Regional Radiocommunication Conference (RRC-04/06), CRC took an active part in the preparation and preliminary coordination of the frequency plan for the introduction of terrestrial digital audio and television broadcasting in Band III (174-230 MHz), Band IV (470-606 MHz) and Band V (606-862 MHz).

## **IV. LICENSING ACTIVITY**

- In pursuance of the provisions of § 2, para. 5 of the Transitional and Final Provisions of the Radio and Television Act Amendment Act, CRC issued 36 licences for audio broadcasting and 29 licences for television broadcasting with local coverage.
- CRC issued three individual licences with national coverage and a term of 20 years for the provision of mobile telecommunication services by the UMTS standard – Class A (2x10 + 5 MHz) to „MOBILTEL” EAD and Class B (2x5 + 5 MHz) to „COSMO BULGARIA MOBILE” EAD and „BTC MOBILE” EOOD.
- CRC issued four individual licences with national coverage and a term of 10 years for carrying out telecommunications through public telecommunication networks of the fixed service of the type “point-to-multipoint” – Class A (2x21 MHz) to „TRANS TELECOM” OOD and „CABLENET” EOOD, and Class B (2x10.5 MHz) to „NEXCOM BULGARIA” EAD and „MOBILTEL” EAD.
- CRC issued the first certificates for registration under General licence No. 220 for carrying out telecommunications through public RLANs of the mobile service.

## **V. MARKET REGULATION**

### ***1. Annual report 2004***

In 2005 the annual analysis of the state and development of the Bulgarian telecommunications market for the preceding year and on the market regulation activities was

elaborated. The analysis is part of the annual report of CRC for 2004 and is based on information received for the activities of 1000 operators of public telecommunication networks, providing telecommunication services through them, as well as of around 170 Internet service providers.

## ***2. Market monitoring***

With regard to the current monitoring of the state of the telecommunications market as a whole and of the separate market segments, surveillance according to number of parameters, defined by CRC, is carried out. The scope of parameters covers the information needed for the implementation of the specific market regulation functions stipulated in the Telecommunications Act, as well as for submission of data for the market development to international institutions and organizations of which under international agreements CRC is a member. Information is also collected within market monitoring projects.

According to the licensing conditions every six months CRC gathers and processes data from the operators on the markets of fixed and mobile telecommunication networks (the operators carrying out the rest of the telecommunication activities should report once a year).

## ***3. Designation of operators with significant market power (SMP)***

Following conducted market analyses, CRC by Decisions No 1742 of 12.09.2005 and No 2389 of 21.12.2005, has designated again BTC AD as a SMP operator on the markets of fixed telephone networks and provision of fixed telephone services and provision of the leased lines service. Being a SMP operator, on BTC are imposed specific obligations provided in the Telecommunications Act, for example, obligations for interconnection, provision of special access and of collocation of premises, telecommunication facilities, ducts, towers and others; universal telecommunication service provision.

During the year, the CRC experts have also carried out analysis of the market of mobile telephone networks and provision of voice telephone services through them. On the basis of the received results, CRC, by Decision No 2393 of 21.12.2005, has designated again MOBILTEL EAD as an operator with significant market power on that market and has imposed on the entity the specific obligations, stipulated in the Telecommunications Act, with regard to interconnection: following the principles of non-discrimination, transparency and confidentiality, when providing interconnection services.

## ***4. Price regulation***

CRC experts have conducted analysis and have elaborated report on the BTC AD proposal for changes in the prices for provision of fixed voice telephone service. The price changes have been adopted by Decision of CRC No 291 of 22.02.2005.

Analyses concerning the approval of prices for collocation of premises and telecommunication facilities, as well as for interconnection were made during the year. The procedure of approval of the general conditions for collocation of premises and telecommunication facilities goes on during 2006.

With regard to the approved by CRC Costing system of BTC AD, in 2005 the operator commissioned auditing of the System to McKinsey&Company. As a result of the audit, there were no changes in the principles and methodology of cost distribution.

## ***5. Universal telecommunication service provision***

During the year, a fund for guaranteeing the provision of the universal telecommunication service was administrated and by Decision of CRC No 648 of 20.04.2005 Rules on its activity were adopted.

By Decision No 906 of 26.05.2005 CRC approved Rules for assessment of the net losses of the public operators from provision of the universal telecommunication service.

## ***6. Cooperation with the Competition Protection Commission (CPC)***

In 2005 CRC has signed an agreement for cooperation with the Competition Protection Commission (CPC) which is realized through bilateral exchange of information, documents and consultation, in accordance with the competence of the two authorities, stipulated by law. During two joint workshops in September and December experts of CRC have prepared and delivered presentations on certain topics concerning the specialities in elaboration of market analyses for the purposes of designation of operators with significant market power, according to the old and new EU regulatory framework, the process of data collection for the purposes of market research and analysis, as well as the regulation of prices of the SMP operators.

## ***7. Participation in international projects***

Being a regulatory authority, CRC keeps on submitting information for the state of the Bulgarian telecommunications market through a questionnaire of the International Telecommunications Union (ITU). The information is needed for the update of World Telecommunication Indicators Database and for the elaboration of the ITU annual report.

CRC follows the events in the sector, including those at European Commission level. The experts of the commission keep active participation in the plenary meetings, working groups and committees of international institutions and organizations, such as the International Telecommunications Union (ITU), Communications Committee of EU (COCOM), the Independent Regulators Group (IRG), the European Regulators Group (ERG) and other bodies involved in elaboration of mechanisms for effective market regulation.

In November 2005 the contract for institutional partnership between the CRC and the Spanish State Secretariat for Telecommunications and for the Information Society under the Ministry for Industry, Tourism and Trade in cooperation with the Telecommunications Market Commission of Spain<sup>1</sup> came to a successful end. The aim of the contract was to increase the CRC capacity for implementation of its regulatory and control functions in a liberalized market, including in the sphere of market regulation.

CRC has started participation in a project for monitoring of the telecommunications markets in South Eastern Europe “SEE Observatory”. The project is financed by the European Commission and is a continuation of the project for monitoring of the telecommunications sector development in the EU candidate and accession countries, which has come to an end when the greater part of the countries entered the EU in May 2004. Within the project, according to a broad scope of parameters, Bulgaria will keep on submitting data about the regulation practices, telecommunication services tariffs and market development.

## **VI. INTERCONNECTION AND ACCESS**

The significant number of Other Licensed Operators (OLO) in the period 2003 – 2005 and the Reference Interconnect Offer (RIO), approved in 2004, served as main factors for signing of agreement for interconnection between the alternative operators and BTC PLC in 2005. As a result, almost all OLO signed agreements with BTC PLC, in addition to this, began their actual

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<sup>1</sup> contract BG2002/IB/TE01/UE “Institutional building of CRC”

implementation, thus providing communication between the users of the individual networks and an opportunity for the end users of the historical operator to use the service „carrier selection (call-by-call selection)”.

The mobile operators, signing agreements with alternative operators, observe the principle of equality.

An agreement for interconnection was signed also between two of the alternative operators: („ORBITEL” AD and „SPECTAR NET” AD), using protocol H.323 for interconnecting.

The amendment of the Telecommunications Act (prom., SG, No. 77/27.09.05) stipulated procedure for settling of disputes, related to interconnection.

Notwithstanding the liberalization of the market, the policy for encouragement of the competition and the approved in late 2004 Reference Unbundling Offer (RUO), three agreements for unbundled access were signed in 2005.

## **VII. NUMBERS AND ADDRESSES**

In 2005 was approved and published the regulatory policy for the use of numbers and addresses for the purposes of telecommunications, which takes into account the current state and outlines the trends regarding the use of this resource in short-term (2004-2005) and middle-term (2006-2007) period of development of the telecom market.

Also, the new National Numbering Plan (NNP) was approved and published. It envisages the European harmonized codes, introduced were non-geographic codes for services for all telecom networks, code for access to services with added value. The development of the networks of the new operators and the licensing of the third GSM operator caused growth in the amount of the numbers, assigned in 2005 – to 10 623 000 in total. Resulting from the digitalization of the fixed telephone circuit of BTC PLC, in 2005 resource, amounting to total 1 789 000 numbers, was released in various regions of the country.

“Technical analysis of implementing number portability and specification of the applicable standards” was drawn up by CRC and published on the Internet site of the Commission. It served as foundation for the elaboration of “Functional specifications for implementing number portability of subscribers of public mobile telecommunication networks”.

## **VIII. STANDARDIZATION AND TERMINAL EQUIPMENT**

In its capacity of National Standardization National Standardization organization (NSO) for the European Telecommunications Standards Institute, CRC conducted public enquiry on project of ETSI documents with statute of „European Standards” and participated in the member voting.

In 2005 were published Ordinance on the ways and procedures of affixing a sign for specific marking for identification of the radio equipment, in compliance with Art. 208, para. 3 of the Telecommunications Act and List of radio equipment whose putting into service is restricted, in accordance with Art. 209, Para. 2 of the Telecommunications Act.

## IX. ELECTRONIC DOCUMENT AND ELECTRONIC SIGNATURE

Based on submitted to CRC applications for registration of Certification Service Providers (CSP), procedures for registration of "INFONOTARY" EAD and „SPECTAR” AD was launched, and before the end of the year the registration of "INFONOTARY" EAD was completed.

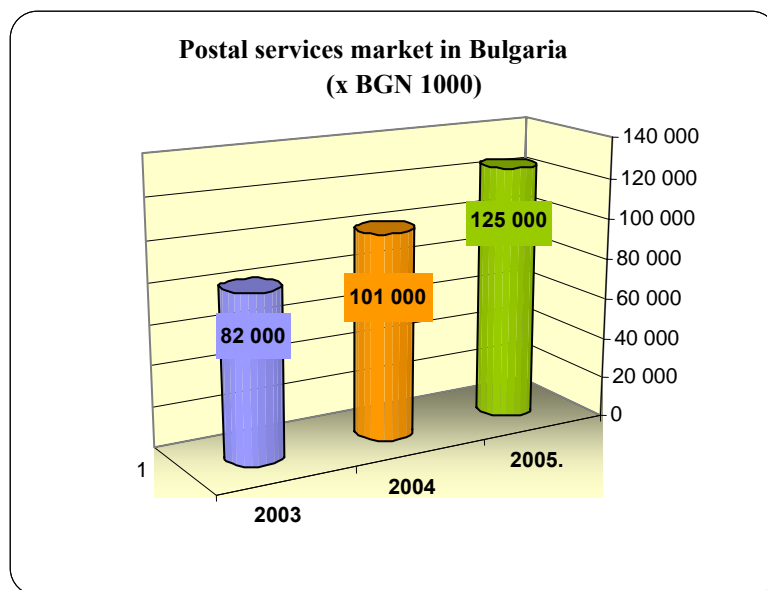
In accordance with the requirements of the Electronic Document and Electronic Signature Act (EDESA), during the year were conducted thorough planned checks regarding the reliability and the security of the certification services, offered by “INFORMATION SERVICES” PLC and “BANKSERVICE” PLC. The assessment, conducted based on the acquired data, facts and documents led to conclusion, that the activities of these CSPs as a whole comply with the requirements of EDESA and the normative acts to it.

During the year was established Consultative Council, devoted to the problems of Electronic Signature.

## X. POSTAL SERVICES REGULATION

For CRC, a priority task in the postal service field was the control over the observance of postal security and quality of service conditions – in relation to the already developed Ordinance on postal security and the approved standards concerning quality and efficacy of the universal postal service.

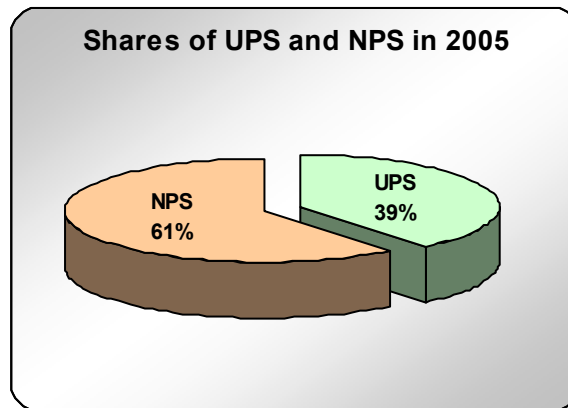
During the year, an analysis was conducted of the trends and condition of UPS and NPS market in 2004, as well as the long-term prospective for its development. The analysis was prepared in the form as an expert assessment based on the submitted data on the activities of the principal postal operator and nearly 94 percent of the registered HPS providers. In 2004, the postal (UPS and NPS) service market was estimated to BGN 101 mln, while in 2005 the market volume increased by 24% and amounted to nearly BGN 125 mln.



*Source: Data submitted to the CRC*

**Fig. 9**

In the recent three years, a tendency of consistent annual growth of about 23% established on the postal service market. The growth is due to the constant increase of revenues gained from the provision of NPS. Since 2003, the NPS revenue growth outstrips UPS. For comparison: in 2003 and 2004 the licensed operator and the registered operators accounted for almost equal shares of the total market, with a slight advantage for NPS. For the past year 2005, the ratio between NPS and UPS in the total volume is already 1,5 to 1.



*Source: Data submitted to the CRC*

**Fig. 12**

## **XI. COMMUNICATIONS CONTROL**

Among the main CRC priorities has been strengthening the control activity as tool for regulation of operators' equality, efficient fulfilment of the security and quality requirements for the services provided as well as observance the provisions of Telecommunications Act (TA), Postal Services Act (PSA) and Electronic Document and Electronic Signature Act (EDESA).

The control tasks are carried out at the units in Sofia and the 5 regional stations (RSKS) in the cities of Plovdiv, Burgas, Varna, Veliko Tarnovo and Vratsa. The control activity is performed in the following directions:

- Monitoring and Control of the Radio Frequency Spectrum;
- Communications inspection;
- Logistic of the control activity.

### ***1. Radio Frequency Spectrum Monitoring and Control***

1.1 In 2005 The Radio Frequency Spectrum Monitoring activities have been directed mainly to fulfilment of the more important tasks as listed below:

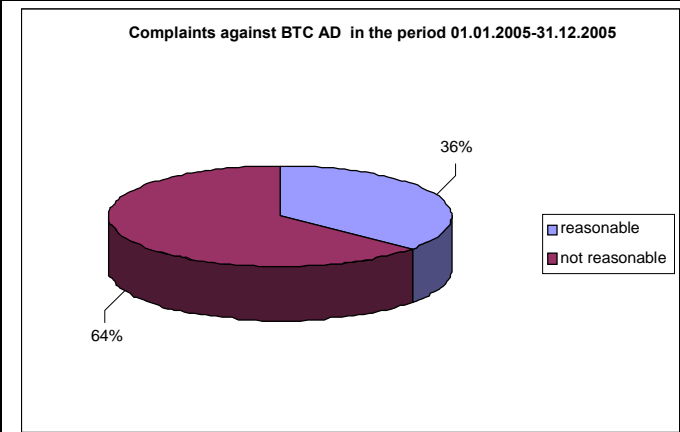
- Measurements and estimation of cross-boarder interferences in the boarder areas;
- Inspections of the Radio Frequency Spectrum occupancy for the country territory related to frequency planning for licensing telecommunications operators of terrestrial UHV FM and TV radio broadcasting, PMR networks and UMTS.
- Implementation of twenty-four-hours-a-day Radio Frequency Spectrum monitoring for the territory of Sofia.

1.2 The Radio Frequency Spectrum control activities in 2005 have been directed on provision of telecommunication services quality (radio, TV, mobile telephony), Electromagnetic Compatibility (EMC) study and analysis, provision of the established radio transmitter stations compliance with the approved technical projects, Radio Frequency Spectrum control based on citizens/bodies signals and complaints.

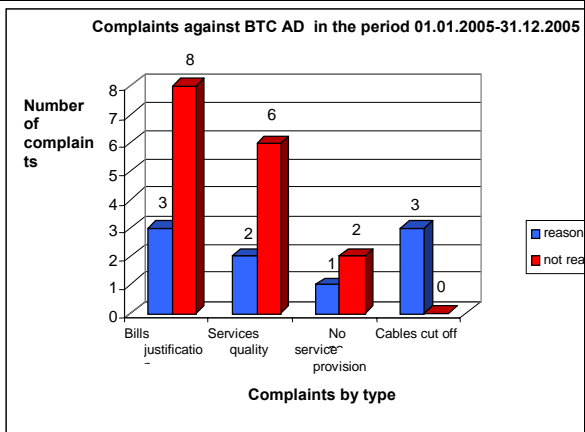
**2. Inspection activity**

**2.1 Communications inspections regarding the telecommunications performance by the order of TA.**

- 283 inspections have been fulfilled regarding operators carrying out terrestrial TV- and radio broadcasting as telecommunication activity. 23 statements of establishment of administrative violations have been drawn up.
- 443 inspections have been performed on public cable telecommunication networks for radio- and TV signals transmission as well as service provision through them. In correspondence to the violations established 59 statements have been drawn up. The inspections initiated by a 57 end-user filed complaints have been finalized with drawing up of 12 statements of establishment of administrative violations. Following penal decrees in effect issued by the Minister of Culture and in relation to General License N 201 violations 13 statements have been drawn up.
- 367 inspections have been carried out concerning observation the terms of individual licenses for establishment, maintenance and operation of PMR private mobile networks. 73 complaints concerning radio interferences in this telecommunication networks type have been filed and as result 12 statements of TA violations have been drawn up.
- 12 inspections have been fulfilled on operators carrying out telecommunication activity through fixed satellite service networks.
- 55 inspections have been performed regarding public telecommunication networks for data transfer without use of a scarce resource. As result 22 statements of TA violations have been drawn up.
- 84 telecommunication networks from the type “point-to-point” fixed radio service have been inspected. After the TA violations established 7 statements have been drawn up.
- In the period from 01.01.2005 to 31.12.2005 25 complaints have been filed against BTC AD - the operator with significant power on the market of fixed voice service. From the total complaints number 9 are reasonable and 16 are not reasonable.

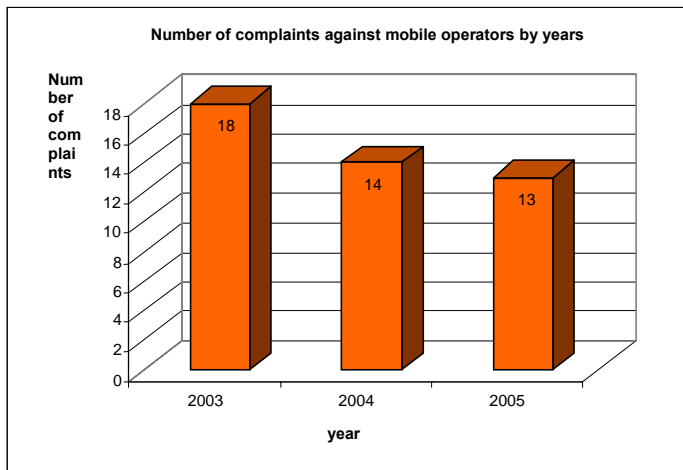


Source: CRC



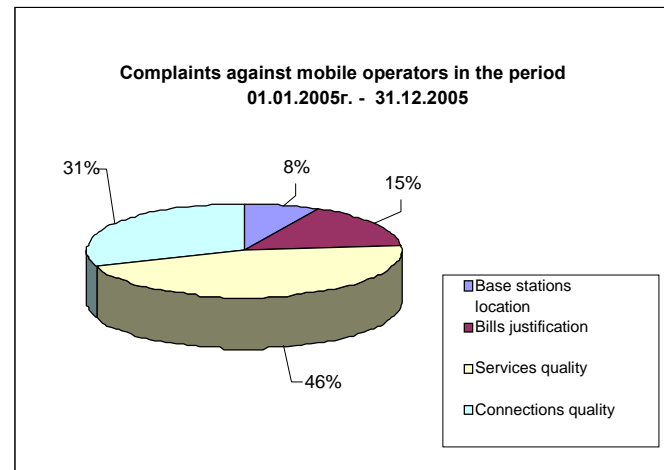
Source: CRC

- A total of 33 requests from telecommunication operators have been filed concerning 102 cable routes. The requests are on imposing to BTC the by TA provided obligations for joint use of the historical operator channel network. As result CRC instructed BTC compulsory to provide joint use of 16 cable routes from the town telecommunication network.
- In the period from 01.01.2005 to 31.12.2005 74 inspections have been fulfilled on the individual license terms observation by BTC. As result 5 statements of establishment of administrative violations have been drawn up.
- In 2005 a total number of 13 complaints have been filed to CRC against the mobile operators MOBILTEL AD, COSMO BULGARIA MOBILE AD and BTC MOBILE AD. Three of the total complaints number concern connections quality and bills justification.



Source: CRC

Fig. 11



Source: CRC

Fig. № 12

## 2.2 Communications inspection regarding the postal services provision after the PSA

- Surveillance has been performed on an extract from 600 real home correspondence parcels regarding the quality norms observation. The quality norms have been adopted with Decision № 1546/29.07.04, promulgated in State Gazette. The surveillance result is illustrated in Table 1.

**Table 1**

<b>Time for end-to-end delivery</b>	<b>Norms of service quality</b>	<b><i>Established service level</i></b>
<b><i>D + 1</i></b>	not less than 78 % from the correspondence parcels	81.63 %
D + 2	not less than 90 % from the correspondence parcels	94.93 %
D + 3	not less than 90 % from the correspondence parcels	97.82%

*Source: CRC*

- 41 inspections have been fulfilled regarding the universal postal service provided by the main postal operator “BULGARIAN POSTS” EAD. As result 1 statement of establishment of administrative violation by BP EAD has been drawn up.
- 20 operators of Non-Universal Postal services have been inspected. As result 3 statements of establishment of administrative violation have been drawn up.

### **2.3 Control on observance of the Electronic Document and Electronic Signature Act (EDESA) provisions.**

- In 2005 2 inspections have been carried out concerning the activity of INFORMATION SERVICE AD and BANKSERVICE AD. Insignificant nonconformities to the norms requirements have been established. As result CRC instructed removal of the nonconformities within a fixed term.

### **3. Logistic of the control activity**

**In 2005 the establishment of the National Monitoring System for Radio Frequency**

**Spectrum Monitoring and Control continued further with the extension of RFS**

**control up to 26 GHz. The extension has been implemented as follows:**

- Establishment of 2 radio monitoring stations: a fixed in Plovdiv and a remote controlled in Vratsa;
- Implementation of remote controlled stations in Varna and Burgas;
- Further equipment of the measurement equipment with the accessories necessary for measurements in the frequency range up to 26 GHz;
- Delivery and installation of geographic information software application.

**As conclusion, by the end of the year 2005 CRC is operating 4 fixed and 3 remote-controlled radio monitoring stations.**

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