# **CONTENTS:**

VI. INTERCONNECTION AND ACCESS	122
1. Disputes, related to interconnection	
2. Unbundled access to the subscribers line	
3. Development of secondary normative acts	124
4. Numbers and addresses	
5. Standardization	126
6. Radio and telecommunications terminal equipment	127
7. Electronic document and electronic signature	

#### VI. INTERCONNECTION AND ACCESS

The interconnection of the public telecommunications networks is considered one of the key instruments for provision of end-to-end communication between their users. On the other hand, the conditions for interconnection and more specifically – the prices, serve as essential factors for the development of an efficiently-functioning competitive market, offering to the users opportunities for best choice regarding the quality of service and the prices.

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 interconnection agreements between the alternative operators and BTC PLC in 2005. As a result, almost all OLO signed agreements with BTC PLC, in addition to this, their actual implementation began, thus providing communications 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)".

In spite of the fact that the RIO and the signed agreements provide conditions for the service "carrier preselection", in practice it did not work. In order to provide this service, it was imperative that BTC PLC introduces additional improvements and modifications in the exchanges as well in the procedures for interaction between the individual units within the structure of the company, and this required additional technological time.

The Telecommunications Act does not impose elaboration of RIO as an obligation of the SMP (significant market power) operator in the mobile networks and services market. Regardless of this, the agreements between the mobile operators and the alternative operators are signed based on 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. By implication of the normative regulations, connection between telecommunications networks via protocol H.323 is not considered as interconnection of telecommunications networks and is accomplished based on free commercial negotiation.

<b>Table 11</b> . Signe	d agreements f	or interconnect	ion in force
-------------------------	----------------	-----------------	--------------

Type:	2004	2005	Total:		
BTC PLC – mobile	0	1	1		
BTC PLC – other fixed	3	6	9		
Mobile – mobile	0	3	3		
Mobile – other fixed	6	6	12		
Fixed – fixed (BTC PLC excluded)	0	1*	1		
* Agreement in accordance with H.323					

Table 12.

Agreements for interconnection between BTC PLC and operators, providing:	2004	2005	Total:
Fixed voice telephone service	3	4	7
Access to Fixed voice telephone service by means of the "carrier selection" service	2	4	6
Access to Fixed voice telephone service by means of the "carrier preselection" service	-	6	6

Source: CRC

The Supreme Administrative Court of Republic Bulgaria, with Decision No.8647/06.10.2005 revoked Decision No.1410/2004 of CRC concerning the approval of Reference Interconnect Offer (RIO). Without an approved RIO, the signing of agreements was based on the principle of non-discrimination in regard to the currently existing interconnection agreements. Pursuant to the decision of the Supreme Administrative Court, CRC with Decision No.1953/20.10.2005 opened procedure for public enquiry on the Reference Interconnect Offer (RIO) for interconnection agreements. The work on the project and its approval will continue in 2006.

## 1. Disputes, related to interconnection.

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

The real introduction of interconnection in 2005 exhibited the shortcoming in the Reference Interconnect Offer, namely: the conditions for provision of access to "Freephone services – 0800" and "Personal number - 0700", which invoked disputes between the operators. In accordance with RIO, the access to "Freephone services – 0800" and "Personal number - 0700" is granted in the conditions of double segment while the distribution of the profit is settled by additional commercial agreement. Based on this, "ORBITEL" AD has expressed before BTC PLC their wish to include in the interconnection agreement conditions for servicing of the traffic, generated in the network of "ORBITEL" AD and directed toward 0700 and 0800 numbers, owned by BTC PLC. No response was delivered by BTC PLC thus compelling "ORBITEL" AD to address CRC for assistance. The reviewing of the facts in connection with the dispute commenced in 2005, while the decision of CRC is expected in 2006.

#### 2. Unbundled access to the subscribers line

Notwithstanding the liberalization of the market, the policy for encouragement of the competition and the approved in late 2004 Reference Unbundling Offer (RUO), in 2005 were signed three agreements for unbundled access - between BTC PLC and "ORBITEL" AD, "SPECTRUM NET" and "NEXCOM BULGARIA". Regardless of the signed agreements, no services were provided using unbundled access to the subscriber's line.

## 3. Development of secondary normative acts

In 2005, began work on the drafts for two ordinances, foreseen in the Telecommunications Act: "Ordinance on the conditions and procedures for assigning and use of the network functions "calling line identification" and "Ordinance on the conditions and procedures for publishing of telephone directories, including the operations with the data bases, their transfer and use, as well provision of directory inquiries services".

The elaborated draft of the "Ordinance on the conditions and procedures for assigning and use of the network functions "calling line identification" and "called line identification" specifies the right and the obligations of the operators for generating and transmitting of CLI information between the networks for providing CLIP, CLIR and Call Forward services. Also, the content of the CLI information was defined, namely: the number of the calling subscriber and indicator for representation of numbers. Introduced were obligations for the operators to make use of the CLI information only for the purposes of functioning and control of their own networks and to prevent access of third parties to it, except in the explicitly defined in the Telecommunications Act cases, or upon request by authorities, related to the national security and defense, as well by organizations, active in cases of emergencies, disasters, calamities and saving operations. An obligation of the operators is enforced, obliging them to transmit CLI in cases of calls to the emergency services, regardless of the settings for the use of CLIR service, entered by the subscriber.

The purpose of the elaborated draft of "Ordinance on the conditions and procedures for publishing of telephone directories, including the operations with the data bases, their transfer and use, as well provision of directory inquiries services" is to provide comprehensible procedures and conditions for publishing of telephone directories, intended not only for the operators, which are liable for the universal telecommunications service. Formulated were some basic conditions for the operators, offering directory inquiries services, while some of the conditions, related to the protection of personal data of the subscribers and the interests of the users of this service, were specified in more details. The publishing of telephone directories and the provision of directory inquiries services for the subscribers is associated with operator's data base. In connection with the data base, the draft implies some obligations to the operators, aiming to provide protection of the data during its storage and processing.

#### 4. Numbers and addresses

In 2005, approved and published was regulatory policy for the use of numbers and addresses for the purposes of telecommunications, which takes into account the current status 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. Numbering resources for development of new networks and services were also foreseen.

In 2005 was prepared and published "List of geographic codes of numbering regions in Republic Bulgaria", containing the telephone codes of the populated places in Bulgaria, used

by the telecommunications operators for long distance and international calls, as well for calls between subscribers of fixed and mobile networks.

In the past year seven new operators were licensed, providing fixed voice telephone service, while CRC let for use 242 000 geographic numbers and 179 addresses (5 ISPCs and 174 NSPCs). For the implementation of the service "access to voice telephone service by carrier selection service" the operators were given four new operator selection codes of the type 10xy. Provided was one code for access to directory information services (telephone directory) - 118 XY.

During the year, allocated were total 23 000 non-geographic numbers for services in the ranges "700", "800"  $\mu$  "90" (10 000 numbers of the range "700", 6 000 numbers of the range "800" and 7 000 numbers of the range "90").

The development of the networks of the new operators caused an increase in the allocated numbers and addresses in 2005.

Table 13.

	Assigned				
Year:	Numbers:	Addresses:			
2003	145000	12			
2004	207000	35			
2005	242000	179			
Total:	594000	226			

Source: CRC

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 geographic regions of the country.

After the licensing of the third GSM operator, block of 10 000 000 nationally significant numbers with access code to the mobile network "87" was provided.

The quantity of one million numbers blocks, used by the operators within the blocks of 10 000 000 nationally significant numbers, assigned to them, is increasing.

Table 14.

GSM operator:	Used numbers as of end 2005:
MOBILTEL	7 000 000
COSMO BULGARIA MOBILE	5 000 000
BTC MOBILE	3 000 000
Total:	15 000 000

Source: CRC

"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.

The analysis reviews possible variants for implementation of numbers portability thus providing preliminary information for the operators and opportunities for selecting of appropriate solution. It also serves as foundation for elaboration of "Functional specifications for implementing number portability of subscribers of public mobile telecommunication networks

#### 5. Standardization

In its capacity of 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. The projects are published on the website of the Commission.

The table shows the number of the conducted enquiries and votings in 2005, as well the received new publications of ETSI.

Table 15.

	Number of processed documents:				Number of procedures:					
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
PE Public enquiry	197	17	40	26	39	21	10	16	12	20
Voting	288	28	24	28	31	29	20	13	13	9
OAP / One-Step Approval Procedure	301	84	93	36	29	38	27	16	15	15
MV Member Voting	31	92	77	35	30	17	25	18	18	12
PUB /Weekly received standards	1670	2461	1786	1233	1463			Weekly		

Source: CRC

Experts from CRC took active participation in the proceedings of the Technical standardization Committees TC 57 "Information and communication technologies" and TC 47 "Radiocommunications systems and radio equipment" to the Bulgarian Institute for Standardization. In 2005, 56 nos. of ETSI standards were proposed for introduction as Bulgarian standards by endorsement.

Periodically the database of ETSI was amended with information about the published national standards, introducing ETSI standards.

In connection with the issuance of licenses and normative documents, significant number standardization documents of ETSI and ITU were studied. Elaborated were lists with recommended applicable standards to Ordinance No.10 on the conditions and the procedures for interconnection of telecommunications networks and to the Ordinance on the conditions and the procedures for calling line identification.

## 6. Radio and telecommunications terminal equipment

In 2005 was 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.

## 7. Electronic document and electronic signature

In 2004 continued the activity of CRC in connection with the obligations, assumed under the Electronic Document and Electronic Signature Act (EDESA), enforced in 2001.

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 with Decision No. 2379/19.12.2005 of CRC.

In accordance with the requirements of Art.32(1) of EDESA, thorough planned inspections were conducted during the year, in accordance with an approved time schedule, regarding the reliability and the security of the certification services, offered by the two first registered CSPs, "INFORMATION SERVICES" PLC and "BANKSERVICE" PLC.

Apart from the certification bodies of the providers, inspected were some of their registration offices throughout the country. Due to the specifity and the diversity of this kind of inspections, the team of inspecting specialists included various experts from "TECHNICAL REGULATION AND ELECTRONIC SIGNATURE" directorate, "LEGAL REGULATION" directorate and GENERAL DIRECTORATE "COMMUNICATIONS CONTROL" of CRC.

The inspections, carried out by CRC, comprised checks on the structure and the operative efficiency of the CSP within certain period of time. They covered the integral operating environment for the services, related to the issuance of certificates, key management and control over the lifecycle of the certificates. In the course of the inspections an evaluation was carried out regarding the compliance of the introduced procedures in the CSP with the provisions of the normative acts as well with the Certification Policy (CP) and the

Certification Practice Statements (CPS) of the relevant CSP. The scope of inspecting was based on the CPS and the procedures, related to it and defining how to apply given CP in accordance with the legal requirements.

Subject to verification was also the fulfillment of the requirement to maintain sufficient financial resources for insurances, as well of the recommendations, related to the physical, network and data security. The inspections addressed also the scope of measures, undertaken to guarantee continuity of the main activities and disaster recovery emergency management. Checked was the observance of the requirements in regard to the technical facilities and the employed personnel. Checks were carried out on the management of the cryptographic hardware, lifecycle the lifecycle of the keys of the subscribers and CSP, as well of the certificates for electronic signature.

The inspections were finalized by signing of audit protocols by representatives of the providers and CRC. The assessment, conducted by CRC based on the acquired data, facts and documents, as well on the observations during the onsite audit, led to conclusion, that the activities of these CSPs as a whole comply with the requirements of EDESA and the normative acts to it. The insignificant omissions, identified during the audits, were considered and discussed with the staff of CSP, responsible for the certification services and the security. Recommendations in written form were issued to remedy any nonconformities.

During the year was established Consultative Council, devoted to the problems of Electronic Signature. Some problematic issues in the Bulgarian legislation in the field of the electronic signature were identified and discussed during regular sessions of the Consultative Council, in addition to this, considered were proposals for amendments to be included in the new draft of EDESA. The purpose of these efforts is to provide improved conditions for implementation of the national strategy for e-government and to provide reliable and affordable mechanism for use of electronic services by means of electronic signature. CRC participated with a representative in the proceedings of Work group 3 "Free Provision of Services" to the Ministry of Finance, where the degree of harmonization of the Bulgarian legislation in the field of the electronic signature with the relevant European legislation is regularly monitored and assessed. The findings in this sphere were encouraging and indicative in connection with the preparedness of the country for accession to the EU.