

On 28 April 2000 the Minister of Transport and Communications approved by order No. RD-08-288 the principles for the National Numbering Plan (NNP). In fulfillment of this order and on grounds of art. 27, p. 8 from the Telecommunications Act, in the STC were prepared and approved by Decision No. 1321 from 20.12.2000 a National Numbering Plan (NNP) and Rules for Allocation of the NNP and Procedures for initial provision, reservation and revocation of numbering capacity. The task force, responsible for preparation of the drafts, was reinforced by specialists from the Ministry of Transport and Communications and the Bulgarian Telecommunications Company.

The National Numbering Plan represents the allocation of telephone numbers in Bulgaria, in accordance with Recommendation Å.164 of the ITU-T. In preparation of the NNP, the State Telecommunications Commission observed the European and international recommendations for numbering, in the search for achievement of maximum harmony. The growing needs of the existing telecommunications networks and services were imbedded, at the same time leaving a sufficient numbering capacity for new networks and services. The National Numbering Plan also complies with the latest technological development on the telecommunications market, taking into consideration the substantial expenditures that any changes in the plan may incur for the operators.

The Bulgarian National Numbering Plan is of the open numbering type – the national (digit) number consists of codes denoting geographic areas and networks and subscriber numbers. Thus, subscribers from one and the same geographic area can establish a connection between each other by just dialing their subscriber telephone numbers, whereas subscribers from other geographic regions or networks add a prefix or code in front of the dialed subscriber number, i.e. the full (digit) number. The advantage of the accepted numbering type lies mainly in easy dialing for the subscribers, meanwhile leading to difficulties in the introduction of full portability of the services and numbers, and the more rational use of the service. For the first time in the country numbering groups were determined, which will be used as a code for selection of an operator, in conformity with the European recommendations.

According to Recommendation Å.164 of the ITU-T, the maximum length of telephone numbers is limited. The European institutions recommend an 8 digit length of the national digit number for countries with a population, comparable in size with the Bulgarian. That length is accepted in the new NNP and the Rules governing its allocation. For this reason, the NNP is regarded as a scarce resource and its proper and rational use is of national importance.

The existing structure of numbers in Bulgaria is of the following type:

International number (11-digit)		
International code for the country (ÑÑ)  359	National (significant) number (NSN)	
	National direction code (NDC)	Subscriber number (SN)

3-digits	1- to 5-digits	3- to 7-digits
----------	----------------	----------------

On a fixed length of the national number (8 digits), the permissible length of the subscriber number depends on the length of the national direction code (NDC):

National significant number (NSN)
National direction code (NDC) + Subscriber number (SN)
Maximum 8 digits

For access to the public trunk and international networks, the following unified prefixes are used:

- “00” – for international dialing;
- “0” – for trunk dialing.

In the existing fixed analog network, a temporary use of the following prefixes is permitted

- “900” – for international dialing via a nodal exchange;
- “90” – for trunk dialing via a nodal exchange;
- “9” – for dialing within a node network;
- “99” – for dialing within a main network.

The national direction codes are geographic (trunk codes) and non-geographic (access codes to networks and services). The number of digits comprising those codes and the subsequent subscriber numbers may vary, but the overall permissible length should not exceed 8 digits, for example:

Number of digits in the national direction code (NDC)	Number of digits in the subscriber number (SN)
A	7-digit (õ õõõ õõõõ)
AB	6- digit (õõõ õõõõ)
ABC	5- digit (õõ õõõõ)

A temporary use of 4 and 5-digit long-distance codes is permitted, with a 4 and 3-digit length of the subscriber number, respectively.

For the geographic national (significant) numbers the principle for a mixed numbering system is adopted, where the national number consists from a national direction code (long-distance), identifying in an unique way a particular numbering area (an open numbering on the territory of the country) and a subscriber number from the same area (closed numbering zone). Each long-distance code is unique and does not vary with the location of dialing.

With regard to long-distance codes, the country is divided into 8 areas (table 20):

**Table 20. Allocation of the NNP into areas:**

Numbering group	Geographic region	Serviced administrative units
2	Sofia	Sofia city
3	Central South Bulgaria	Kurdjali, Pazardjik, Plovdiv, Smolian, Haskovo
4	Southeast Bulgaria	Sliven, Stara Zagora, Yambol
5	Eastern Bulgaria	Burgas, Varna, Dobrich, Shumen
6	Central North Bulgaria	Veliko Turnovo, Gabrovo, Lovech, Pleven, Turgovishte
7	Southwest Bulgaria	Blagoevgrad, Kustendil, Pernik, Sofia region
8	Northeast Bulgaria	Razgrad, Russe, Silistra
9	Northwest Bulgaria	Vidin, Vratza, Montana

The non-geographic direction codes (access codes) are used for access to mobile networks, non-geographic services, provided on a national level and to other networks and services.

Recently, three two-digit national access codes were assigned, which were designated for access to the 48, 87 and 88 mobile cellular networks. The maximum length of the national (digit) numbers for those networks is 8-digit. For future use, the following national direction codes are reserved as access codes to mobile cellular networks: 49, 89, 98 è 99. If necessary, some further 2-digit codes may be released, such as 97. Three-digit access codes may be provided as well.

As codes for access to national non-geographic services are used codes, carrying information for the type of service, the call direction type within the network, etc. Such codes are: 800 – a free access telephone, 900 – value-added services, 800 and 900 – reserved for future use. The numbering capacity “1” is used mainly for national services (following the dial-up of the trunk prefix “0”).

The numbering group 1000 (following dial-up of the long-distance prefix “0”) is selected for the choice of an operator, where 00 is the number of the respective operator.

For subscriber numbering in the fixed telephone networks the numbers from “2” to “9” may be used as first digits. In the cases where “9” is used as a prefix, the subscriber numbers cannot begin with that digit.

Short numbers, beginning with “1”, are allocated in accordance with the international recommendations for services.

For subscriber numbering in the mobile networks the first digits from “2” to “9” are used, while for services - “1”.

The subscriber numbers for non-geographic services (for example, from the 800 and 900 type) may begin with any number from “0” to “9”. The permissible maximum length of the subscriber number is fixed and is determined by the length of the access code. In the present numbering scheme, the length of subscriber numbers for non-geographic services from this type is 5-digit.

The short-dial (abbreviated) service numbers have 3- to 4-digits, and begin with “1”. They are used in the fixed and mobile networks for access to different types of telecommunications services of public importance: emergency medical services, police, fire brigade; directory and information services – exact time; weather forecast; medical, transport, tourist information; services provided via operator (telephonist) – telephone directory, orders, information inquiries; access to networks/ services of a long-distance/ international operator; additional services – activating/ deactivating of services, such as CLIP, CLIR (identification and provision of numbers to the calling subscriber and ban on provision of numbers to the calling subscriber), abbreviated dialing numbers, etc.

The numbers beginning with 10, 11 and 19 are reserved for European harmonized services. Up to date the following numbers have been harmonised: 112 – emergency services, and 118 – telephone directory.

In assistance of the application of the NNP, the State Telecommunications Commission elaborated Rules for allocation of the NNP and Procedures for initial issue, reservation and revocation of numbering capacity, further called the Rules. The Rules are implemented in Bulgaria for the first time. Harmonised European rules and their analogs adopted in leading European countries, such as Great Britain, Ireland, France and other countries, were used in their preparation.

The Rules ensure equality of operators in the initial issue and reserve of numbering capacity, as well as the terms and conditions for revocation and control of the numbering capacity. They assist in regulation and enhancement of the economic use of the scarce numbering resource in our country.

The NNP and the Rules were published for national discussion on the Internet page of the STC, and forwarded for opinion to various institutions and operators – the Ministry of Defense, the Ministry of the Interior, the Ministry of Transport and Communications, BTC, Mobiltel, RTC, Global and Jordan and Global One Communications and Information Services. Discussions were held with representatives from these organizations, in which the drafts were reviewed and as a result, the final version of the NNP and the Rules was agreed.

Both documents came in effect from 1 January 2001. The information related to the structure of the NNP, the Rules and the status of numbers and/or numbering groups, is made public. The NNP and the Rules are published in the Information Bulletin issued by the State Telecommunications Commission, as well as on its Internet page.

At the beginning of 2001 a detailed register will be prepared for the occupied, reserved and free numbering capacity, which will also be published on the Internet page of STC.

At present, no radical changes are recommended to the NNP, bearing in mind the high costs for its preparation and the discomfort to users, both in the country and from abroad. More acceptable will be to conduct a timely revision and upgrade of the now existing NNP by introduction of reasonable changes, which will enable to release numbering groups for new operators and allow an easier transition to the closed numbering type.

It is expected that towards the beginning of 2001 year will commence work an Advisory Council to the State Telecommunications Commission, in which all interested parties will participate. The Council will provide advice to the regulatory body on issues from the management of NNP and will seek to employ alternatives for the more efficient and effective use of the NNP.

The numbering capacity occupied towards the end of 2000 and the percentage fill-in versus the number of subscribers is shown on table 21.

**Table 21. Percentage fill-in of the occupied numbering capacity**

Operator	Occupied national (digit) numbers	Number of subscribers	Percentage fill-in
BTC	24,619,500	2,862,587	11.6
Mobilitel	2,000,000	564,600	28.2
RTC	1,000,000	167,994	16.7
GSM 2	1,000,000		
Other	500,000	38, 000	7.6

The above data shows that the percentage fill-in for the majority of operators posts figures which are much under the recommended values of 20 to 40 %.

In the case with the incumbent operator – the Bulgarian Telecommunications Company (BTC) this fact can be explained with the significant number of analog telephone exchanges, the renovation of which will be unprofitable. The percentage ratio of the numbers used over the network by these exchanges, reaches 80 %. On the other hand, the network digitalization is a costly process, which showed a tendency to retard during 1999, and was paced up throughout 2000, especially in the larger cities. In the near future that will lead to release of numbering groups for the larger cities, which, following liberalization of the market, will be provided to new operators providing the ordinary telephone service.

The capability of operators for rational occupation of their assigned numbering capacity are far greater, due to the use of digital exchanges in their networks. That creates the opportunity for enhanced introduction of the universal number for emergency “112”, as well as for the number portability.

During the past year, the subscriber number to Mobilitel marked a sharp increase and by decision of the STC a second access code to the GSM network was provided, in this way creating opportunities for normal network functioning and its

future development. A code for access to the network for a second GSM operator was predetermined, to be provided to the winner in the auction carried at the end of 2000.

The other operators using capacity provided on primary basis are mostly the paging operators. The non-rational use of the numbering capacity by those operators is mainly due to the insufficient growth in the number of their subscribers.

Following acceptance of the NNP and the Rules, the State Telecommunications Commission fixed tariffs for the use of scarce resource by the NNP, included in the updated Tariff for Fees, collected by the STC. With the introduction of the tariffs was fulfilled the relevant legal provision for payment of annual fees for the use of scarce resource and creation of an economic lever for the effective use of the numbering capacity by operators.

