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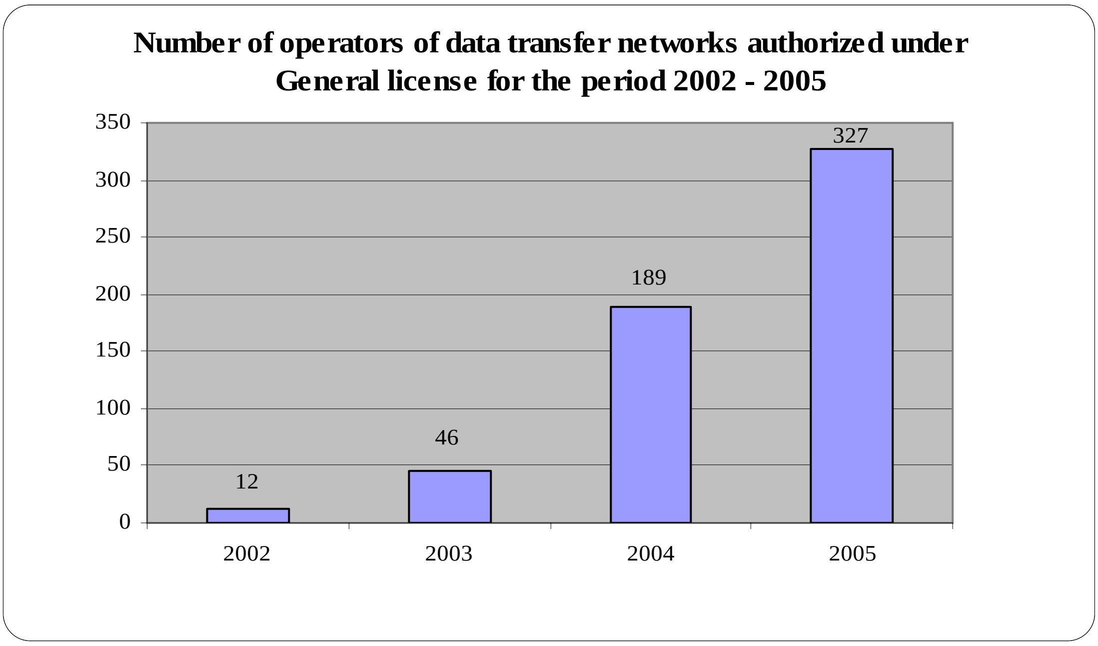
6. Data transfer networks and Internet access service provision

In 2005 the number of operators authorized under General license No 217 to carry out telecommunications through public telecommunications network for data transfer without use of scarce resource and provision of telecommunication services through it reached 327 (Figure 78), which is 70% more compared to last year. The significant growth is due to the stable trend of last years increasing number of providers, formerly providing Internet access under free regime, to register their networks. The number of the registered operators has increased almost 30 times for the last 3 years.

Therefore, in 2005, for the purposes of market analysis CRC has introduced a change in telecommunications market segmenting and examines the data transfer networks and Internet access provision services as one common market segment.



Source: *Data submitted to CRC*

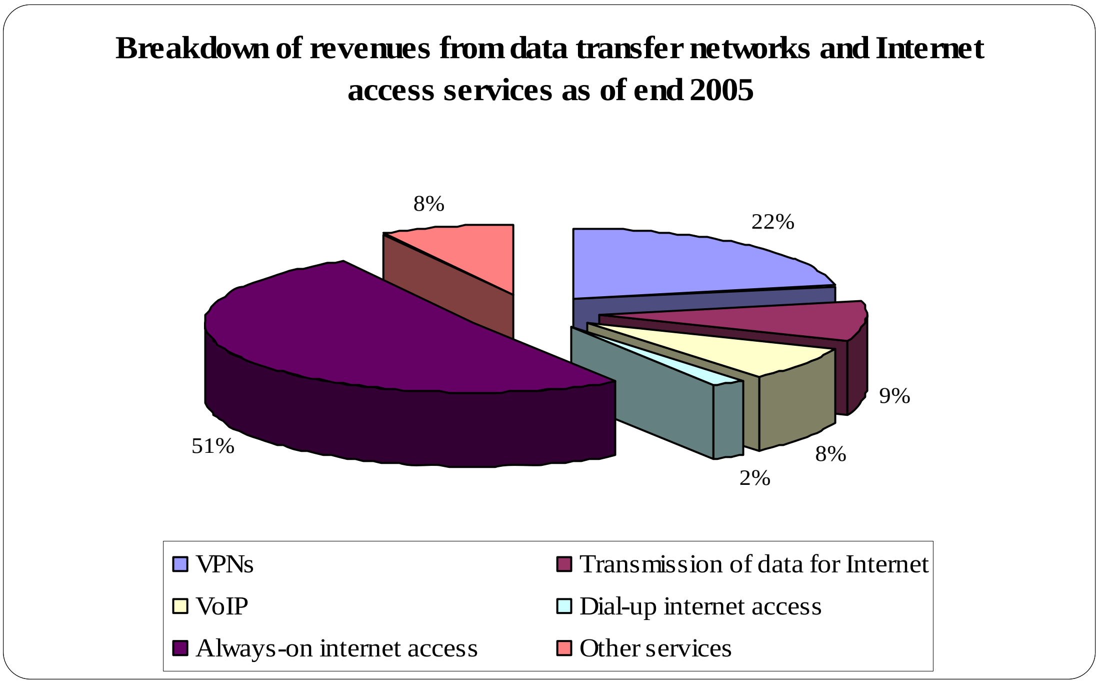
Figure 78

In 2005 there are no newly licensed operators, carrying out activities on individual licenses for data transfer networks having rights to use scarce resource – numbers from the National Numbering Plan. At the end of the year, the number of that kind of operators is 5.

The segment of “Data transfer and Internet access” includes also revenues of the operators with individual licenses to carry out telecommunications through public telecommunication networks in the fixed service of “Point-to-point” type: at the end of the year their number is 20. In 2005 this market segment comprises also the operators authorized under General License No 220 to carry out telecommunications through public RLAN network in the mobile radio service (adopted by CRC Decision No 1809 of 01.10.2004), which at the end of the year are 63 in total.

In 2005 the volume of “Data transfer and Internet access services” market segment amounts to 112,8 mln. BGN. 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. 70 % out of 122 probable Internet service providers, from which information on the activities carried out in 2005 was requested, have not respond.

The analysis of the breakdown of revenues from services provided by the operators in 2005 shows that the biggest share have those from always-on internet access (51%), whereas the share of the dial-up access is only 2%. The revenues from provision of other telecommunications services[1] amount to 8% of the total.

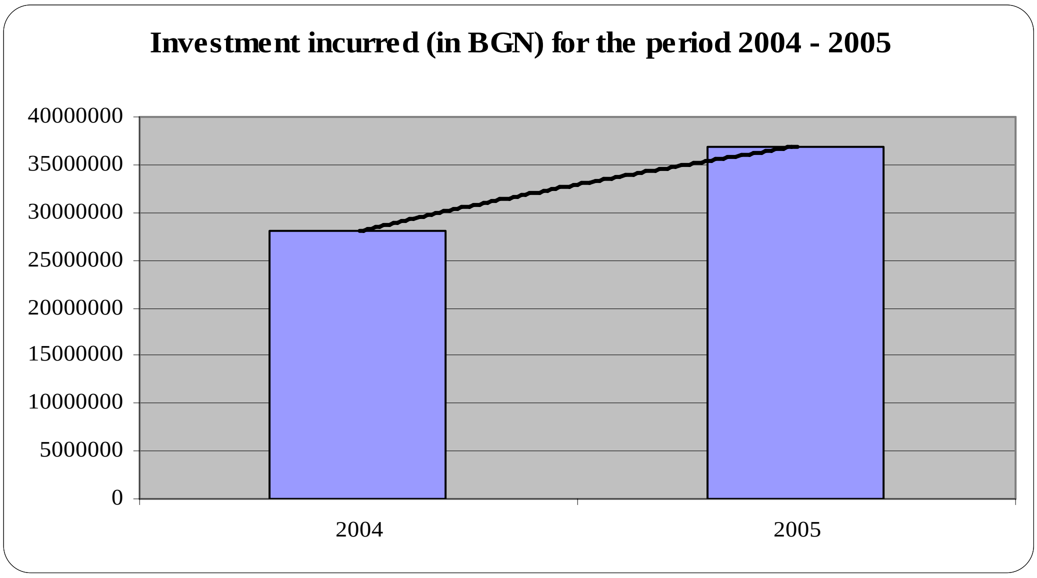


Source: *Data submitted to CRC*

Figure 79

For the last year the operators have declared 37,064 mln. BGN invested in data transfer networks and Internet access services, that is 32% more compared to 2004 (Figure 80).

[1] Other services include the following services: 1. collocations of facilities; transmission of other data, etc.



Source: *Data submitted to CRC*

Figure 80

Internet access services

The trend of active introduction of Internet applications in the every day life of the users strengthens in 2005, while the consumption of Internet access services keeps on growing steadily.

According to data from *Vitosha Research* survey[2] the number of people having access to computers has increased significantly. Their share has increased twice for the last two years and at the end of 2005 has reached almost 28% of the adult population. If to this figure are added also the users under the age of 18, then the share would go beyond one third of the Bulgarian population.

The unexpected growth of the number of people having access to PC is explained by the survey with the continuing expansion of the computer hardware and software market and the steady trend of increasing income of the population.

With regard to the structure and number of users having access to PC, significant changes are also observed. In 2005 home Internet users have increased almost three times and the people using PC at work – almost twice. The office and the home are still the most popular places for Internet access.

The number of subscribers of Internet access services, calculated on the basis of data submitted to CRC by 352 licensed and registered operators and Internet service providers under free regime, is about 155 000. According to data from the *Vitosha research* survey[3], at the end of 2005 around 23,8% of the Bulgarians over the age of 15 have Internet access, while at the beginning of the year this indicator amounted to 16,3%.

The forthcoming accession of the country to the EU may lead to changes in the sector, mainly to increased control over the import of computer components. That would result in more strict tax policy for their sales on the Bulgarian market and more serious measures to restrict the "grey economy" in the sector. However, the payment of more income taxes would mean higher prices for the end user, which would affect mostly the home users and the small

[2], [59] Indicators of the Information society development in Bulgaria during 2005-2006. Analysis of trends, second stage", Vitosha Research survey made to order by the State agency for information technology and communications.

firms. On the other hand, the control over the distribution of pirate software and illegal Internet content would also increase, which would additionally raise the end user prices. Therefore, the growth of Internet users is expected to decrease its rates at the end of 2006.

The trend of decrease of the number of Internet users of dial-up access persists and the main factors for that are the low speed (up to 64 kbit/s) and the high price of the associated telecommunication service (per minute charge of the local call through the network of the incumbent operator BTC AD). According to data from the Vitosha Research survey, the most popular Internet access is the cable one (around 4,3% of the population in the 15-74 age group), followed by the LAN access (3,1% of it). Compared to results from Vitosha Research survey as of November 2004, the share of the dial-up users declines (at the end of 2005 1,8% use that type of access). ADSL and access through mobile handset use in total less than 1% of the population in the age group 15-74.

As it was noted earlier, the cable Internet access still remains the most common one, but compared to the last year, when it has represented around half of the connections, now, according to the survey data, only around one third of the Internet users have chosen this type of connection. According to CRC data, around 6% (37 operators) out of more than 600 authorized cable operators have declared to provide Internet access services through their cable networks in more than 40 settlements, mainly in the big cities. The revenues from cable Internet represent around 7% of the total revenues in the cable services sector and around 13% of the Internet access revenues.

In 2005 the trend of building-up and enlargement of the LAN networks continues. The advantages of that type of access are the easy service activation and the possibilities for maintenance of comparatively low prices for the users. The Internet access services through LAN are preferred by the users because of the higher speed rates to the local servers with free of charge access to music, movies and other various information. At the same time, the LAN Internet providers do not offer high enough speed rates to the international Internet space as that would increase their costs. The basic disadvantage of the majority of the LAN networks is the lack of guarantee for the quality of service for the end users.

In 2005 more and more Internet service providers remove the initial activation charges. A great part of the LAN networks offer unlimited access at the price of around 20-25 BGN per month, including VAT, while according to data from a research made to order by the CRC[4] almost 30% of the respondents have stated to prefer subscription by contract for always-on Internet access.

At present, one of the fastest developing sectors in the field of electronic communications in Europe is broadband. For the purposes of the market analysis, in accordance with the methodology of the project for SEE telecommunications markets monitoring, broadband Internet access requires speed equal to or higher than 144 kbit/s.

According to data from the survey made to order by CRC[5], in 2005 the number of broadband connections in the EU has increased with almost 20 mln., having reached 53 mln. The average EU broadband penetration as of October 2005 is 11,45%, while the most common broadband technology in the EU is xDSL.

DSL services have the biggest share of broadband provision worldwide, while 65%[6] of the Internet users prefer that kind of access. That is due to the possibility to combine the fixed network means and the high-speed Internet services demand. The advantages of this service are high-speed rates, secure and always-on connection, and possibility to use and pay together telephone and Internet services. ADSL service is offered in packages via subscriptions and the prices are close to those for cable Internet access.

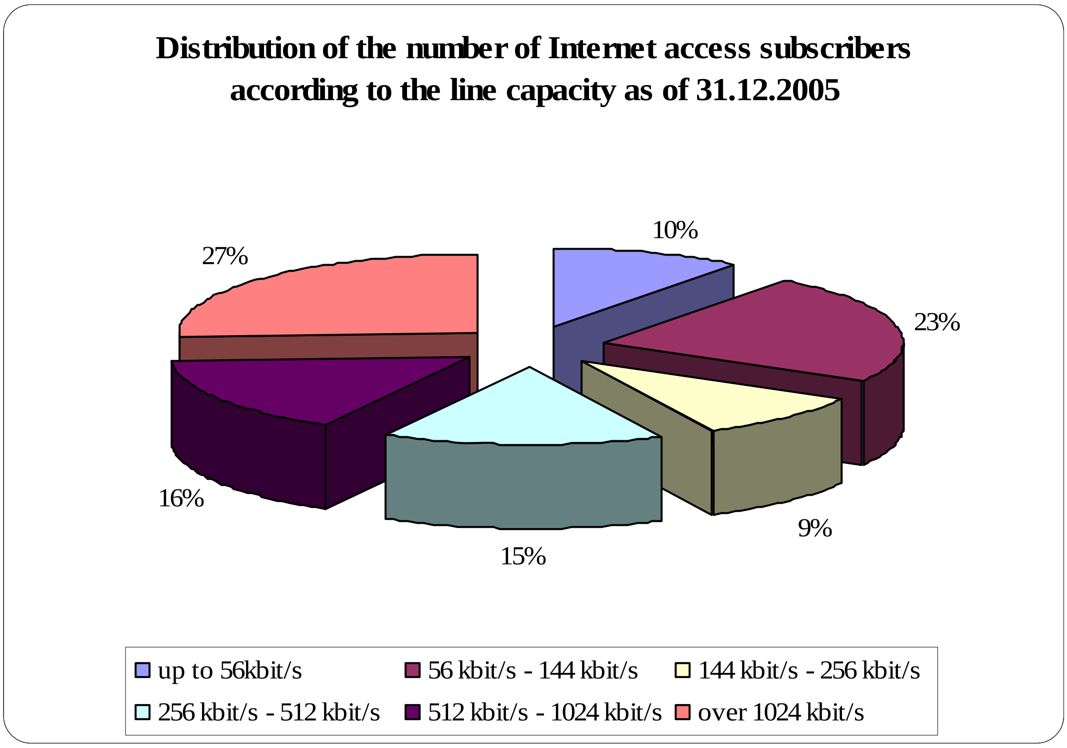
[4, 62] "Research and analysis of consumer demand for telecommunications services in Bulgaria", 2006, survey of the Economic faculty of Sofia University made to order by CRC

[6] TeleGeography, www.telegeography.com

In Bulgaria, for the time being, of the xDSL services only ADSL is presented, being provided by the incumbent operator BTC AD. In 2005 significant growth of the ADSL subscribers (on comparatively low basis) is observed, which as of 31.12.2005 are 6 times more than the preceding year.

Beside the BTC ADSL service, broadband access in Bulgaria offer also the operators of cable telecommunications networks, the great number of LAN and RLAN networks. The "broadband penetration" indicator, calculated on the basis of data by the operators and providers, which have submitted information to CRC is around 0.675%. It should be kept in mind that the calculated value is underestimated due to the fact that part of the operators and providers have not responded and CRC lacks information for the whole segment of Internet access service provision. Thus, estimation could be made that the broadband penetration in Bulgaria at the end of 2005 is around 1%.

Figure 81 illustrates the distribution of Internets subscribers according to the line capacity, while the share of subscribers of Internet connections at speed up to 144 kbit/s is 33%, and that of subscriptions at speed equal to or higher than 144 kbit/s is 67%. According to the criterion used and the results presented bellow, the subscribers of broadband Internet access represent 2/3 of the total number of subscribers of the operators and providers, which have submitted data to CRC.



Source: *Data submitted to CRC*

Figure 81