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I. STATE, DEVELOPMENT AND PROSPECTS OF THE TELECOMMUNICATIONS MARKET

1. Characteristics of the telecommunication services market

1.1. Global development of the telecommunications sector

Volume and growth of the sector

During 2006 the telecommunications sector keeps the trend of its dynamic development. The total revenues from telecommunications during the last year amount to 1,3 trillion USD\(^1\).

![Figure 1: Worldwide ICT annual market growth, 2006-2008, in %](image)

Source: EITO, 2007

According to the EITO forecasts in the next two years the sector growth will slow down by 2,8-2,4% on the average per year and the slightest growth will register the markets in Japan, USA and Western Europe, characterized by high saturation levels and intensive competition (Figure 1). Greater growth potential for the next year will have the markets in Latin America, the Middle East and Africa, as well as some of the Asia-Pacific countries, having in mind the comparatively low penetration of services, underdeveloped infrastructure and the weaker competition in these regions.

With regard to the geographical location of the leading telecommunication corporations, the analysts expect they will continue to concentrate in the Asian region due to the cheap working force and fast and early introduction of new technologies. This would enhance the software and services development. Typical example are the mobile communications: the 3G networks, as well as the next generation mobile networks, 4G, are expected to spread first namely in Asia within the next five years\(^2\).

Fixed telephony

A lasting trend of drop in the fixed telephone services revenues is observed during the last years, resulting from the increasing competition of the alternative voice transmission technologies. The users tend more and more to substitute the traditional telephony with IP based one due to the lower costs and with mobile – due to mobility and additional services options through mobile handsets. In 2006 the fixed telephone market volume, calculated based on revenues, has decreased by 2,2% and amounts to 453 214 bn USD\(^3\). In Europe the drop is estimated to 5,1%\(^4\).

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2. Source: Economist Intelligence Unit, www.eiu.com
The falling prices of the fixed telephone services put pressure on the incumbent operators (generating the basic part of their revenues from traditional telephony) to look for new revenue sources. In order to survive under conditions of increasing competition and consumer migration, the incumbents change their offers, as well as their communication with the customers. Some of them minimize their costs, concentrating on access provision for big corporate clients and transfer the servicing of millions of end users to companies having experience with certain customer segments. Other possible direction for development is the provision of new services, including content and for the consumers – IP television, music, online game, etc. Many incumbent operators launch bundled services, beside the popular double fixed telephony-Internet access service, also 3Play and 4Play are already offered in some of the countries.

The incumbent operators, especially in the European markets face increasing competition by the alternative operators. The EU market data as of July 2006 show that the significance of the alternative operators grow: 32% of the customers prefer the services of alternative operators when making international calls, 28% of them – for long-distance calls and 24% for local calls. Among the member states, Spain is the country with greatest number of customers of alternative operators (58% for international calls), Finland (45%) and Sweden (39%)\(^5\).

**Mobile communications**

The mobile communications keep their dynamic development. At the end of the year the number of mobile subscribers worldwide is around 2,5 bn, which is 25% more compared to end-2005\(^6\) (Figure 3). The analysts foresee slow down in the subscribers’ growth rate and during the next year the rate will decrease almost by half – up to 12,8% according to iSuppli.

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EU Telecom Rules 12th Implementation Report: More, better and cheaper services for Europe's consumers

\(^6\) GSM Association statistics 3GSM Statistics, Q4 2006 [www.gsmworld.com](http://www.gsmworld.com); Wireless intelligence
At the end of the year the mobile penetration worldwide is 41%. It is expected to reach 50% by mid-2008 (Figure 4).
The majority of users in absolute value are those of China and India (Figure 5), but the mobile penetration indicator for both of the countries remains below 25%, while in some regions it exceeds 100% and reaches 103% at end-2006\(^7\) (Figures 4 and 5).

The mobile market is quite dynamic regarding usage of different mobile technologies: the subscribers of GSM technology (still the most popular one) have increased by 24.7% compared to 2005, while the WCDMA networks subscribers have grown by 103.5% for the same period. In geographical aspect, the 3GSM/WSDMA networks are mostly spread within the Western Europe region (48.07%), followed by the Asia-Pacific, 47.04%\(^8\).

The 3G mobile services are offered already by 70 operators in all the member states of the EU. Highest 3G penetration rate in Europe is observed in Italy (20% of all mobile subscribers), as well as in Portugal, Luxembourg, Ireland, United Kingdom and Sweden\(^9\).

\(^7\) EU Telecom Rules 12th Implementation Report: More, better and cheaper services for Europe's consumers
\(^8\) Source: GSM Association statistics  3GSM Statistics, Q4 2006 www.gsmworld.com; Wireless intelligence
\(^9\) http://ec.europa.eu/information_society/policy/commercial/implementation_enforcement
Average revenue per user

In the EU countries, the revenues from provision of mobile services have increased by 4.6% in 2006, amounting to 133 bn euro. Drop in the ARPU is observed in almost all big markets due to the lower prices for mobile services and the higher number of subscribers. On a global scale, the trend shows growth of the APRU from data and drop in the ARPU from voice. The higher revenues from data are also due to the 3G services offered in the market. Within the short period when 3G are offered in the market, the growth of the ARPU from data is between 5% and 20% for the different geographical markets. In Italy, where 3G is quite popular, one of the operators registers 34% share of data in the ARPU for 2006.

![Revenues from provision of mobile services worldwide, 2005-2010](image)

Source: Ovum

High ARPU rates are reported in Japan as well, where NTT DoCoMo is market leader with revenues over 1bn USD. The operator is aiming at 80% share of the revenues from data until 2010\(^\text{10}\). Many mobile operators in EU encourage their subscribers to use data services through flat rates. The operator’s readiness to reduce these prices is explained by their willingness to compensate the decrease in the ARPU from voice services\(^\text{11}\).

During the last three years SMS services’ share within the volume of data revenues has increased. Portio Research foresees that the revenues from SMS services shall increase up to 67 bn USD in 2012, while the number of messages will reach 3.7 trillion. For 2007 the Mindbranch analysts predict 68% increase in the revenues from data services due mainly to the growing number of messages sent. The SMS traffic will grow in the next years due to introduction of new applications and services: parking payment through SMS, notifications for fines, advertising, etc.

Many operators invest in making popular the mobile television, but their hopes for a revenue boom didn’t come true during the year\(^\text{12}\). Audio and video content created by the users themselves was most popular.

International roaming services

The prices for international roaming are still at significantly high levels. Despite the political pressure over the operators in the EU countries to reduce the price, it was not enough. In June 2006 the European Commission suggested Regulation for the international roaming prices. The draft Regulation which the member states should adopt provides for fixed price ceilings for both retail and wholesale charges for

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\(^{10}\) Wireless World 2007 - Perspectives: Wireless data ARPU, by Chetan Sharma
\(^{11}\) Data from survey of ABI Research
\(^{12}\) EU Telecom Rules 12th Implementation Report: More, better and cheaper services for Europe's consumers

http://ec.europa.eu/information_society/policy/ecomm/implementation_enforcement

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roaming calls. At the moment the roaming tariffs vary strongly across the countries and operators, some exceeding 3 Euro per minute.

**Internet**

According to Internet World Stats data, at the beginning of 2007 the Internet users worldwide exceed 1 bn or 16.6% of the world population\(^{13}\) (Figure 8).

\[
\begin{array}{cccccc}
\text{North America} & \text{Oceania/Australia} & \text{Europe} & \text{Latin America} & \text{Asia} & \text{Middle East} & \text{Africa} \\
39\% & 33.50\% & 39\% & 16\% & 11\% & 10\% & 4\% \\
\end{array}
\]

**Source:** Internet World Stats

According to comScore Networks, 747 mln people over the age of 15 use Internet worldwide. This represents a 10%-growth for one year. The highest growth rates register India (33%), the Russian Federation (21%) and China (20%).

Canada is leader concerning the “average number of online hours per user” indicator, followed by Israel, South Korea, USA and United Kingdom – countries with high broadband penetration. As a whole, the total number of Internet hours spent by the broadband users is three times higher than the number of hours spent by the narrow-band users.

Deloitte Touche Tohmatsu\(^{14}\) predicts sharp increase in the Internet traffic volumes due to the growing video files transfer, requiring broader bands than the voice transmission.

**Broadband access**

At the end of 2006 the total number of broadband lines has reached 281,5 mln worldwide, which represents 31,1% growth for a year, while the broadband penetration rate is 5,4%\(^{15}\).

\(^{13}\) Internet World Stats, [www.internetworldstats.com/stats.htm](http://www.internetworldstats.com/stats.htm)

\(^{14}\) Deloitte Touche Tohmatsu, TMT Trends: Telecommunications predictions 2007, [www.deloitte.com](http://www.deloitte.com/)

\(^{15}\) Point Topic, World Broadband Statistics, Q4 2006
Regarding the geographical distribution and development, Eastern Europe increases its share for one-year period from 2.9% to 3.8%. The Middle East and Africa have 2.1% from the total number of broadband lines, or around 6 mln users. Western Europe registers 27.6% of the lines, or 77.7 mln lines (Figure 9).

More than 20 mln broadband connections are built in the EU countries in 2006. At the end of the period the broadband lines in the EU amount to almost 73 mln, while there are significant differences regarding the penetration in the different countries. The average broadband penetration for the EU countries is 15.7% compared to 11.4% in 2006\textsuperscript{16}.

The leading broadband technology in Europe is still xDSL, followed by cable and fibre, which are distributed mainly in the Scandinavian countries, Netherlands and Italy.

According to Abi Research, the total number of DSL and cable broadband lines shall grow by 9% annually on the average and in 2012 the number of their users will reach 480 mln.

The total number of DSL lines reached 185 mln worldwide (66%), those of cable broadband lines – 62.8 mln (22%) and of the fibre lines – 30 mln (11\%)\textsuperscript{17}.

The analysts foresee further rapid growth of DSL compared to cable and fibre. The reason for that is the technical feasibility for usage of already built telecommunications infrastructure which makes possible lower prices and easier service introduction.

\textsuperscript{16} \url{http://ec.europa.eu/information_society/policy/ecomm/implementation_enforcement}

EU Telecom Rules 12th Implementation Report: More, better and cheaper services for Europe's consumers

\textsuperscript{17} \url{http://point-topic.com/contentDownload/dslanalysis/world%20broadband%20statistics%20q4%202006.pdf}
Highest growth is observed in the Asian-Pacific region, due to a great extent to the flourishing Chinese broadband market.

The forecasts show that the WiMAX users will reach 14.9 mln in 2009 and will generate over 13,8 bn USD. It is expected that during the same year WiMAX would be a dominating technology within the wireless broadband segment, due to serious support by leading equipment manufacturers. The majority of WiMAX networks are still tested. At the moment, in Asia-Pacific are located most of the users due to the numerous population and the newly emerging economies in the region. Eastern Europe and Latin America are still introducing the technology because of the low broadband penetration rates. In the developed regions (such as Western Europe), the introduction of WiMAX is slower due to high broadband penetration rates.

**Voice over Internet protocol (VoIP)**

2006 keeps the trend of more and more usage of VoIP. The attractiveness of the Internet telephony and the fast growth rates of its consumption are due to the cheap or even free international calls offered on one side, and to the further introduction of broadband access on the other. According to survey of Abi Research, the number of VoIP subscribers is just below 38 mln in 2006, while until 2012 they will reach 267 mln. This boom will be caused by the cable and data transfer operators, aiming at maximum benefits from the own broadband networks.

As of end-2006 Skype services are used by 171 mln registered users, generating traffic of 7,6 bn Skype-to-Skype minute and 1,5 bn minutes outgoing calls in total. Almost half of them are international calls. In March 2006 Skype launched “Skype for Business”, targeting at the small enterprises, while in August, according to data of the company, the share of business users has reached 30% of all Skype users. This type of services are competing the services of the traditional providers, which keep on developing own VoIP solutions for the small business.

**New revenue sources for the industry**

The broadband technologies development, together with the spreading of digital electronic devices for the consumers, enables the growth of the market for audio, video and games content. The markets for multimedia content and services shall influence significantly the content providers, service providers, equipment and software manufacturers, etc.

The revenues on the market for value-added video services, including pay-TV, mobile video, DVD, broadband video and other services are expected to grow up to 277 bn USD in 2010, while during 2006 they have reached almost 200 bn USD (excluding revenues from advertising).

This growth will be mainly due to the pay-TV services. In 2006 the revenues from this market segment are around 120 bn USD worldwide. During the last year the satellite TV providers, as well as the analogue and digital cable providers, were dominating in the market.

It is expected that the telecommunication companies will enter the market segment during the next years with more and more aggressive IPTV offers, especially for pay-TV and quadruple play. The forecasts show that the IPTV segment will reach 23,5 bn USD in 2010, growing by around 103% each year (forecast until 2010).

Services, such as the new SMS-based mobile applications, mobile TV, video and voice transmission, music download and interactive games require certain features of the mobile handsets: high screen resolution, faster processors, more memory, additional flash cards, and lower battery consumption. In order to respond to the demand, the mobile handsets manufacturers should be in line with the consumer’s needs, as well as with the new technologies.

According to data of isuppli, in 2006 the revenues of the companies providing mobile content platforms amount to 4,193 bn USD, those of the mobile content providers are 7,714 bn USD, while the mobile operators have earned 4,421 bn USD. The total revenues from mobile content reach 16,328 bn USD.

The 2007 forecasts predict revenue growth up to 19,945 bn USD, and until 2011 up to 35,334 bn USD.

**Top mobile and wireless trends worldwide**

**Mobile access diversity**

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19 Source: Skype, http://www.skypejournal.com/blog/2007/01/skype_had_a_better_q42006.html
20 Ovum, Why do enterprises love to hate Skype?, www.ovum.com
21 Source: isuppli, www.isuppli.com
22 The seven top mobile and wireless trends for ’07, David Hankin
In 2007 is expected launch of major WiFi and WiMAX networks, some of them with national coverage. Besides being nationwide and mobile, they promise to be cheap and fast, at least compared with the 3G mobile data service.

In general, these two types of networks will lead to increased user mobility, more demand for mobile services and applications and more competition among the suppliers. The networks are expected to compete with the mobile operators and even with the incumbent telecom operators that provide DSL.

**Bundling of services**

The increasingly available mobile access will lead to a beginning of another trend, namely, one provider for a number of services: bundles of fixed and mobile telephone services, data services, as well as media services and other entertainment. This type of services are offered by mobile operators, as well as fixed, cable, etc. In the short term, this will mean more competition and lower prices for the consumers. However, this trend will make it difficult for so-called competitive telecommunications operators to stay in business, not having the wherewithal to offer such bundles. Therefore, in the long run, this trend threatens to restrict competition to a couple of big players.

**Mobile e-mail**

Cheaper devices and more mobile access options will lead to greater use of mobile applications. The most popular of these applications is mobile e-mail. Previously, only owners of expensive smart phones had access to it, but now with cheaper smart phones available for the masses, more mobile e-mail use can be expected.

**Personal mapping applications**

Advanced mapping applications with the ability to track people carrying cell phones will start to catch on. These technologies are based on the inherent ability for mobile operators to know where subscriber phones are. Similarly, GPS built into cell phone will become increasingly popular.

**Mobility gets social**

The social-community based approach of Web 2.0 will increasingly become part of the mobile landscape in 2007. Most of the Web 2.0 generation applications (such as MySpace, Google, Wikipedia, blogging, etc.) are quite popular among the desktop users, but it will take time to be adapted to the mobile users and devices.

**Convergence**

Refers to an old, but still largely unrealized dream of using a single phone and having a single number for both mobile and fixed calls. The phone will automatically detect the most advantageous network in terms of cost and signal strength and route voice call and data over that network. Converged devices would include both mobile and VoIP calls, using Wi-Fi networks. Built-in software would seamlessly transfer between the two types of networks.

**Mobile media**

More and cheaper mobile access and cheaper devices will lead to more use of mobile media applications. The existing trend of using products from different vendors to transmit television from home to mobile devices (so called place-shifted television) is expected to upsurge in 2007. Ultimately, this will lead to larger mobile devices that are more appropriate for watching video.

Important trend worldwide is the expected higher growth of broadband consumption compared to the growth of wireline service. For the 2005-2010 period is foreseen growth of the revenues from wireless services by 9.9%, while the volume of fixed services, both narrow-band and broadband, will mark lower growth of 2%.

The intensive introduction of Internet in the modern life and the fast spreading of broadband technologies enhance the transformation of the communications industry.

On a global scale, the broadband providers look for successful business models enabling high speed rates for their services through Internet platform. The traditional fixed network operators make large investment into building up of next-generation networks (NGN), aiming gradually at fully converged networks and services, based on Internet protocol (IP), compensating in such a way market shares lost due to decreasing popularity of the fixed voice services. The operators look for new ways for enlargement of their product portfolio, in order to offer more added value for the services paid.

The NGN development is enhanced by digitalization, packetization and IP standards, so that it will be practically possible for every network to provide any service (voice transmission, data, video and other mixed multimedia services) through one platform, while all these services will be available at any time and place through more and more devices.

The result will be significantly reduced costs to enter the market, better adaptability and increased competition.

Ultimately, a converged, dynamic communications infrastructure will lead to significant economic benefits worldwide and will raise the standard of life.

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1.2. Volume and structure of the Bulgarian telecommunications market

Two approaches have been used for assessing the volume of the Bulgarian telecommunications market for the last four years.

The first approach follows the methodology within the monitoring project of the EU accession and candidate countries from South-Eastern Europe (SEE)\(^{25}\), according to which the telecommunications market comprises five segments: fixed services, mobile services, data transmission over the fixed network, cable television and other telecommunication services\(^{26}\). The second, more detailed approach comprises the following market segments: fixed services, mobile services, leased lines, data transmission and Internet access, cable TV, networks in the fixed satellite service and other telecommunication services.

In 2006 the volume of the Bulgarian telecommunications market, estimated on the basis of the revenues from the market segments included in the second approach amounts to 3,028 bn BGN or 1,548 bn Euro, which constitutes a 10% increase towards the preceding year. For the sake of comparison, the increase in 2005 with respect to 2004 was the same showing that despite of the continuing growth, the Bulgarian telecommunications market holds its development rate. The volume of the telecommunications market constitutes around 6% of the total Gross Domestic Product (GDP) of Bulgaria, and for a first year its growth falls behind the GDP growth (the GDP growth of the country for 2006 has increased by 14.7%\(^{27}\) compared to 2005).

Figure 11 illustrates the change in the revenues volume by segments, Figure 12 – the dynamics in the telecommunications market structure, and Figure 13 – the telecommunications market growth in the country for the period 2001-2006.

![Revenues by segments of the telecommunications market, 2001-2006](image)

**Source:** CRC

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\(^{25}\) The SEE Observatory project of the European Commission for assessment of the state and development of the telecommunication market in the EU accession and candidate countries from the SEE region. The project began in February 2005 and is commissioned by the EC to the consultancy company Cullen International. In the course of three years four monitoring reports on the telecommunication markets of the region shall be drawn up in nine-month periods. As of the preparation of the CRC 2006 Annual Report, three of the project reports have already been issued.

\(^{26}\) At the moment there are still no data available for the volume of the revenues generated in the SEE countries as of end 2006. Therefore, in the present analysis comparisons between Bulgaria and the SEE countries regarding the volume and growth of the telecommunications market were not possible.

\(^{27}\) Nominal value based on current prices (the real GDP growth for the same period is 6.1%. Source: National Statistical Institute, www.nsi.bg
The analysis of the data makes possible tracing and outlining the basic trends in the telecommunications market development in recent years:

- In 2006 for all market segments (excluding the “fixed services” segment) both in absolute and relative value growth is observed compared to 2005. The greatest growth is those for the “networks in the fixed satellite service” and for “other services” – over 50%, and lowest for the cable television segment, 6%.
- In 2006 is kept the established trend – the revenue share from mobile services grows by 4 points for one-year period, while those from fixed services decrease by 5 points (Figure 12).
- Leased lines feature fluctuations: after revenue growth of 4% in 2004, in 2005 there is a reduction of nearly 27%, followed by growth of 20% in 2006.
After retention in 2004 and 2005, in 2006 there is growth of the “data transfer and Internet” revenues by 26%.

The segment of mobile networks and services in Bulgaria continued its rapid development under conditions of increasing competition and market saturation. The revenues from that market segment have increased in absolute value by 19% and constitute more than a half (59%) of the revenues from telecommunication services in the country as a whole. The high growth rate and the significant relative share of the mobile networks segment is due, on one side, to the continuing trend more and more consumers to give up the fixed voice services and substitute them with mobile ones, and to the great number of aggressive promotions for attracting of new customers held during the year, specially in the pre-paid segment.

Despite the presence of 13 active alternative operators on the market of fixed voice telephone networks and services, the relative share of BTC AD revenues from provision of those services remains too high (96.9%), which is once more an indicator of inefficient market competition during the last year. The revenues from fixed telephone networks and provision of fixed voice telephone services decrease by 8% in absolute value and by 5% in relative value towards the total market volume compared to the preceding year. This reduction results from the decrease in BTC AD revenues that is not compensated by the revenue growth of the alternative operators. The decrease in the cash flows 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 ever more popular free PC-to-PC real-time transmission of voice over Internet, the usage of software like Skype and due to the fact that the alternative operators still have a limited access to the subscribers of the incumbent operator.

In 2006 seven telecommunication operators provide carrier selection services and only one of them (ORBITEL AD) provides carrier pre-selection. As a whole, only 0.68% of the BTC AD subscribers have used carrier selection services during the year.

Figure 14 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, while at the end of 2006 the number of subscribers registered by the mobile operators exceeds the number of population, which means that the number of people using more than one SIM card grows.

- **Source:** CRC

In 2006 have not been issued any new individual licenses for carrying out of telecommunications through telecommunication network for provision of the leased line service. The revenues from leased lines have increased by 20% compared to the previous year. This is due to the greater number of alternative operators carrying out activities in the market (10 in 2006 compared to 7 in 2005), as well as due to the growth in the revenues of the incumbent operator BTC AD. The relative share of the ex-monopolist in the

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28 ITD NETWORK AD, BTC NET EOOD, GODL TELECOM BULGARIA AD, NEXCOM BULGARIA EAD, ORBITEL AD, SEPCTRUM NET AD and TRANS TELECOM EOOD
structure of this market segment is 95%, which represents reduction by 2 points in comparison to 2005, while the share of the competitors has increased up to 5%.

During the year 33 new operators of public cable telecommunication networks were registered, 97 supplements to existing registrations were issued, and the number of ceased registrations is 33. This demonstrates that on this segment the competition increases regarding the separate settlements. According to an expert estimate of the CRC, the volume of the total revenues from cable telecommunication networks amounts to 161.5 mln BGN, which is 6% more in comparison with 2005. The greater part of them are still generated from broadcasting of radio and television programs, the revenues from which mark growth of 5% and reach 81% of the total revenues from the market segment, while the relative share of the coded programs decreases by around 5% and amounts to 1%. Along with the provision of radio and television programs packages, the operators of cable telecommunication networks offer or have intentions to offer bundled services such as double play, triple play, coded programs, data transfer and video on demand.

The volume of the networks in fixed satellite service amounts to 19.35 mln BGN and has increased by 50.8% compared to 2005. The growth of the segment is considerable and is explained by the significant share of digital television services. In 2006 CRC has licensed one operator under individual license No 112 for carrying out of telecommunications through public telecommunication network from the fixed satellite radio service (to BICAM EOOD) and has issued two certificates for registration of operators under General license No 216 for provision of telecommunication service – access to satellite systems (to FORCE DELTA OOD and ELSAKOM SPA EAD).

In 2006 the volume of the “data transfer and services for provision of Internet access” segment amounts to approximately 142 mln BGN and marks growth of 26% compared to the preceding year. The number of the BTC ADSL service subscribers has increased almost 2,4 times. According to CRC estimation as of end 2006 the broadband penetration in Bulgaria is 6% and has increased by 4 points in comparison to 2005. Despite of the growth, our country is still in one of the last places regarding the penetration of such services compared to the EU countries.

The following figures illustrate the segment of interconnection within the general structure of the telecommunication market.

Note: When estimating the volume of the interconnection segment, the revenues from physical implementation of interconnection are taken into account (ports, lines and points of connection); traffic termination (generated by other fixed/mobile operators in Bulgaria and abroad, including SMS and MMS traffic), transit traffic and collocation.

**Source: CRC**

On their entry on the telecommunication market, the newly-licensed operators have a limited number of own subscribers. The attraction of users would be strongly restricted if their connection with subscribers of other operators is not feasible, especially with subscribers of the incumbent operator. Ensuring conditions for interconnection of the networks of the newly-licensed operators with the networks of operators that are firmly established on the market is a prerequisite for the creation of a real competitive environment on the telecommunication market in Bulgaria.
Since there is no separate segment “interconnection” in Bulgaria, the revenues realised by fixed and mobile networks from interconnection are included in the estimate of the volume of the fixed and mobile services segments.

Although the revenues from interconnection have increased by 23%\(^{29}\) in volume, their share in the general structure of the market has increased just by 1.6 points relative to 2005. The data confirm the trend established in recent years of more and more traffic being confined within the mobile networks. It is becoming increasingly rare traffic generated in a fixed network to be terminated in a mobile network, and vice versa. This trend is due to the fact that the fixed-to-mobile interconnection rates in Bulgaria are the highest ones across Europe (see figure 59). In addition, the consumers on a mass scale support several SIM cards depending to which network they need to make a call (normally on-net mobile calls are considerably cheaper and even for free in comparison with the off-net mobile calls).

The investments in building and maintenance of networks and development of services stated by the telecommunication operators amount to around 815 mln BGN. The decrease of over 14% relative to 2005 and is due primarily to investments made by the three mobile operators during the previous years. The investment foreseen for 2007 amounts to over 918 mln BGN.

1.3. Prospects for development of the Bulgarian telecommunications market

Despite that in certain market segments of the Bulgarian telecommunication market (such as fixed voice telephone service and unbundled access) the competition makes its way slowly and with difficulty, during the next years growth potential will be generated by the emerging technologies, network convergence and the offering of bundled services. This will enhance the competition and will blur the boundaries between the existing market segments, while additional stimulating factors will be the increasing consumer needs towards on-line way of life, globality and interactivity. On other side, the upcoming regulation in compliance with the principles of 2002 EU regulatory framework after the adoption of the new Electronic Communications Law in 2007 shall be a necessary prerequisite for stimulating the investment and competition in the sector for the years to come.

It is expected that the provision of bundled services shall generate increasingly greater share of the revenues from telecommunication services. Along with the more and more popular double-play and triple-play packages of the cable operators, data transfer network operators shall begin to offer similar services of the type Internet, VoIP telephony and IP television. In 2007 is expected that the mobile operators with already strong positions in the market shall launch fixed voice telephone service, which is a prerequisite for the emergence of fixed and mobile telecommunication networks convergence in the country. This shall enable them to provide on the Bulgarian telecommunication market bundled packages of fixed voice service, mobile voice service and Internet.

The expected introduction of mobile number portability will stimulate the competition as a result from the efforts of the operators to retain the existing subscribers and to attract new ones. The main advantage will be for the consumers, who, without changing their existing number, will have the possibility to choose a mobile operator offering conditions and tariffs plans corresponding best to their individual needs.

Until the beginning of 2007 three of the operators, which have received point-to-multipoint licenses in 2005, have launched provision of services (fixed voice telephony and Internet) through WiMAX technologies. Having in mind that this wireless technology is a real alternative for the “last mile” access of the incumbent, as well as its potential for provision of a wide range of services for the end users, it may be expected that WiMAX will drive stirring on the telecommunications market in the country.

Reorientation towards digital format of broadcasting, transmission and reception of television signals is also a trend that makes its way for the years to come: more and more cable operators offer packages of digital television programs, competing the offers of the satellite operators. The advantages for the consumers compared to the analogue signal are significant in regard to the higher quality and interactivity.

In mid-2006 ITS Broadband platform for Bulgaria was founded with the participation of leading technological and telecommunications companies and with the support of SAITC, BAIT, CRC, etc. Its main purpose is to make the broadband services popular in our country. According to the platform participants, the

\(^{29}\) Gross revenues, exclusive of deduction of operators’ payments
broadband access in the country has a potential to double on annual basis during the next 4-5 years. The main problems to be solved towards achieving that goal are: broadband penetration growth in rural areas, attracting of EU funds investment for financing of projects, introduction of tax concessions schemes for investment in communication infrastructure, as well as governmental programs for subsidizing, regulatory and legal framework.