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II. ELECTRONIC COMMUNICATIONS NETWORKS AND SERVICES

1. Voice telephone services

The volume of market segment "Voice telephone services" amounted to BGN 2,323.1 million, as the greatest share in the total volume of the segment – 83.4% – was held by revenue from the provision of mobile voice services through numbers from the NNP.

Table 2 displays information about the number of undertakings which provided services in this market segment in 2010, the number of their subscribers/lines who used voice telephone services, and the revenue from services provided.

Table 2.
Number of undertakings, subscribers/lines and revenue by the type of the voice telephone services provided in 2010

| Name of the service | Number of undertakings providing the service in 2010 | Number of subscribers/lines as of 31.12.2010 | | Revenue (in million BGN VAT excl.) ² |
|--|--|--|-----------------------------------|---|
| | | Total ¹ | incl. bundled service subscribers | |
| 1. Fixed voice service³ | /// | /// | /// | 381.475 |
| 1.1. Fixed voice service through geographic numbers from the NNP and the "carrier selection" service | 21 | 2,156,920 | 393,330 | 377.357 |
| 1.2. Telephone services through public payphones | 6 | 11,551* | /// | 4.118 |
| 2. Mobile voice service through numbers from the NNP | 3 | 10,199,942 | 319,432 | 1,936.515 |
| 3. Other voice services⁴ | 29 | /// | /// | 5.142 |
| Total | /// | /// | /// | 2,323.132 |

¹ Incl. bundled service subscribers

² Excl. revenue from bundled services

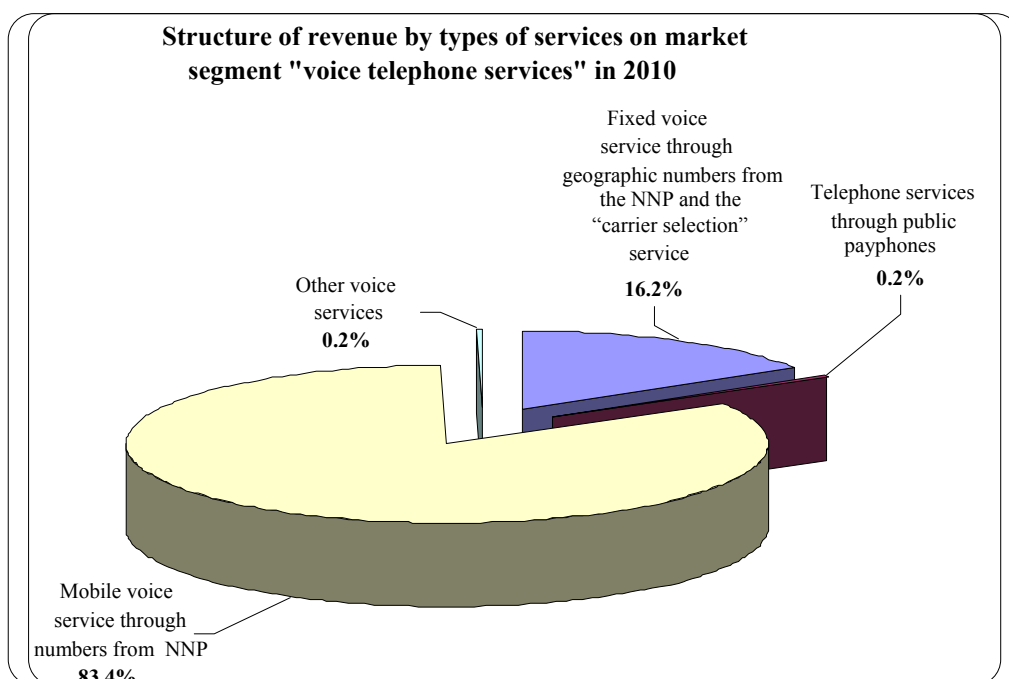
³ Three of the undertakings providing fixed voice telephone service through geographic numbers also provided telephone services through public payphones

⁴ Incl. voice service through numbers with a national access code of the "99x" type, VoIP and other services related to the provision of voice telephone service

* Number of public payphones and booths

Source: Data submitted to CRC

Fig. 12 shows the distribution of revenue from different services in the segment's volume.



Source: Data submitted to CRC

Fig. 12

As the data presented on the chart clearly shows, the greatest share is occupied by revenue from mobile voice service (83.4%), followed by revenue from fixed voice service. It is impressive that revenue from public payphones and other voice services is insignificant, with a share of 0.4%.

1.1. Fixed voice telephone services

1.1.1. Players on the fixed phone service market

Undertakings providing services included in segment "fixed telephone lines" are listed in Table 3, and can generally be divided in two groups:

- undertakings providing fixed telephone service and access to public telephone service through the "carrier selection" service - the activity is carried out under a registration regime through the use of individually assigned scarce resource;
- undertakings providing access to public telephone service via public payphones - the activity is carried out under a notification regime.

Table 3.

Authorized undertakings and undertakings actually providing public telephone service via fixed network and/or access to public voice telephone service through the "carrier selection" service in 2010

| Name of the undertaking | public voice telephone service through fixed network | | access to public voice telephone service through the "carrier selection" service | |
|---|--|-----------|--|-----------|
| | authorized | operating | authorized | operating |
| Total number | 25 | 20 | 9 | 6 |
| "ITD NETWORK" AD | √ | √ | √ | √ |
| "BLIZOO MEDIA AND BROADBAND" EAD | √ | √ | | |
| "BTC NET" EOOD | | | √ | √ |
| "BULSATCOM" AD | √ | | | |
| "BULGARIAN TELECOMMUNICATIONS COMPANY" AD | √ | √ | | |
| "VARNA NET" OOD | √ | √ | | |
| "VESTITEL BG" AD | √ | √ | √ | |
| "VOXBONE" S.A./N.V. | √ | √ | | |
| "GLOBALCOMMUNICATION NET" AD | √ | √ | | |
| "GOLD TELECOM BULGARIA" AD | √ | √ | √ | √ |
| "ESCOM" OOD | √ | | | |
| "EASTERN TELECOMMUNICATIONS COMPANY" AD | √ | √ | √ | |
| "INTERBUILD" OOD | √ | √ | | |
| "INTERROUTE BULGARIA" EAD | √ | √ | | |
| "INFOHELP" EOOD | √ | | | |
| "CABLESAT-WEST" OOD | √ | | | |
| "COSMO BULGARIA MOBILE" EAD | √ | √ | √ | |
| "MOBILTEL" EAD | √ | √ | | |
| "NEXCOM-BULGARIA" AD | √ | √ | √ | √ |
| "NET IS SAT" OOD | √ | √ | | |
| "NETFINITY" EOOD | √ | √ | | |
| "ORBITEL" EAD | √ | √ | √ | √ |
| "SKAT TV" OOD | √ | √ | | |
| "SPECTRUM NET" EAD | √ | √ | √ | √ |
| "TELEDATA" AD | √ | | | |
| "TELECOM 1" OOD | √ | √ | | |

* As of 31.12.2010, "BTC NET" EOOD is not authorized to use an assigned scarce resource - numbers, for providing public electronic communications through a public electronic communications network and provision of a fixed telephone service.

Note: Information about "Trans Telecom" AD is not displayed, since by the time of the annual report's completion, the undertaking had not provided any information on its activity in 2010.

Source: CRC Public Registry and data submitted to CRC

In 2010, CRC issued to five undertakings authorizations for the use of an individually assigned scarce resource - numbers for carrying out public electronic communications via public electronic communications network and provision of fixed telephone service.

At the beginning of 2010, "SPECTRUM NET" AD gained a sole control over "ORBITEL" EAD. In the second half of 2010, "CABLETEL" EAD and "EUROCOM CABLE MANAGEMENT BULGARIA" EOOD started the provision of electronic communications services under a common brand - "Blizoo".

As table 3 clearly shows, a total of 21 undertakings have declared that they actually provided public telephone service via fixed network and/or access to public voice telephone service through the "carrier selection" service in 2010.

The total number of undertakings which have declared their intention to provide public telephone services via public payphones amounts to 18, including BTC, which provided the service access to public telephone services via public payphones as part of its obligation to provide universal service. Of them, six undertakings (including BTC) have declared to CRC that they were actually providing the service.

1.1.2 Change in the "fixed telephone service" segment

Revenue generated in 2010 from the provision of fixed telephone service¹, access to public telephony services through the "carrier selection" service and access to public telephone services via public payphones and public phone booths, amounted to BGN 381.5 million. Data on the volume of revenue from this market segment in 2010 confirm the sustained trend towards decrease by registering a decline of nearly 26%, as compared to the year before².

When compared, data about the total volume of traffic generated by subscribers, measured in minutes, from national³ and international calls in 2010, reveals a decrease of nearly 11%, against the respective generated traffic in the preceding year.

The market share of the incumbent, calculated on the basis of revenue from the provision of public fixed telephone service via fixed network and "carrier selection" service, amounted to 91.3% in 2010, which is a drop by 4.4 percentage points since the year before.

Revenue earned in 2010 from provision of "access to public telephone services via public phones and public phone booths", amounted to BGN 4.1 million, according to data of undertakings that provided the service, which represents a decline of over 36%, as compared to 2009.

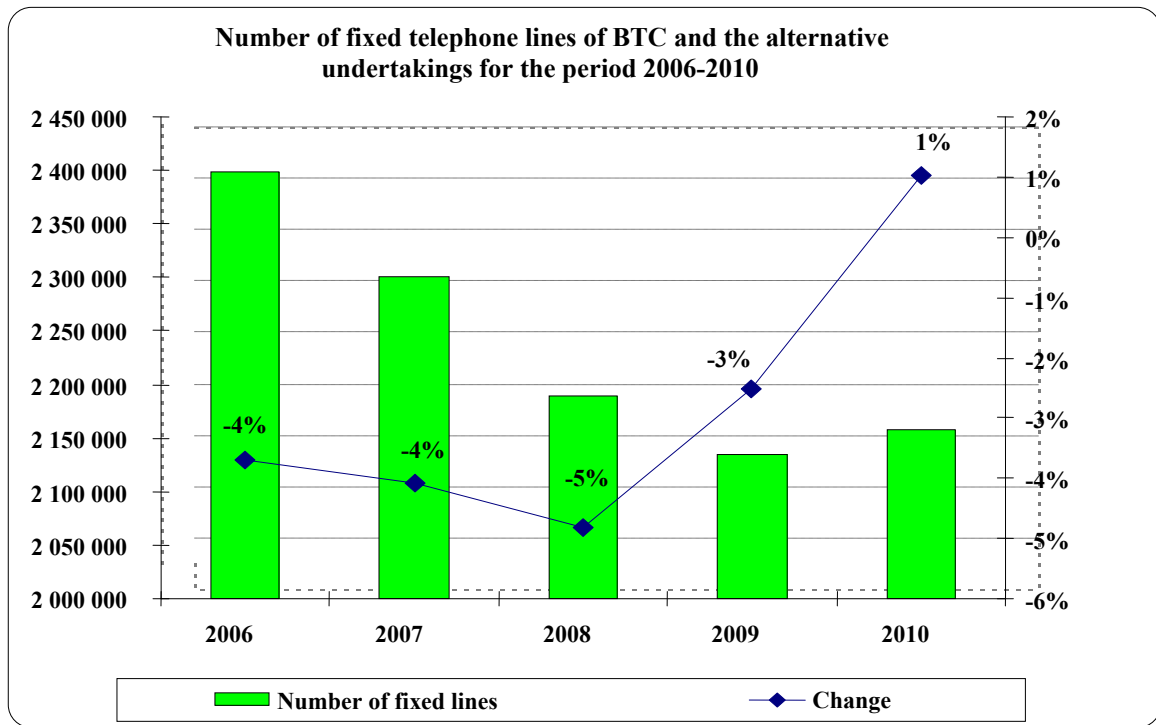
1.1.3 Fixed telephone lines

According to data submitted by undertakings providing fixed telephone service, the total amount of fixed telephones in Bulgaria registered a 1% growth, as compared to 2009 (Fig. 13).

¹ According to the new general market segmentation, the fixed telephone services segment excludes revenue from installation fees and monthly subscriptions for bundled services which include fixed telephone services.

² Revenue from the provision of duct network access, which in 2010 was included in "Other services" segment, are deducted from the 2009 revenue.

³ Incl. local and long-distance calls, calls to mobile terrestrial networks, to broadband wireless access networks, and to non-geographic numbers.



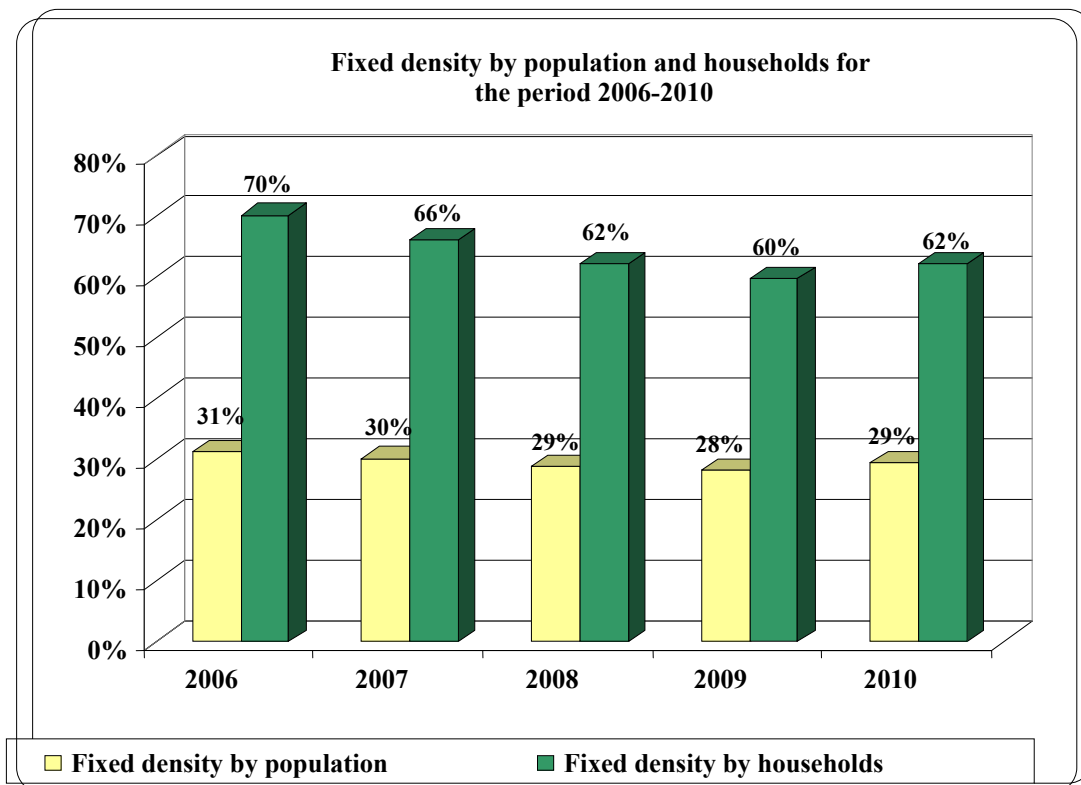
Source: Data submitted to CRC

Fig. 13

The growth reported in 2010 is due to the considerably increased number of fixed telephone lines of subscribers of alternative undertakings, which at the end of the year compensated the drop in the number of fixed telephone lines of subscribers of the incumbent. The total relative share of telephone lines of the alternative undertakings reached 19.5% of the total number of fixed telephone lines, which is a growth of 10 percentage points since the end of 2009. The incumbent's market share, calculated on the basis of fixed telephone lines, reached 80.5%.

The increased number of fixed telephone lines, reported by undertakings providing fixed telephony service at the end of 2010, and the registered drop in the number of population and households in Bulgaria⁴, reflect on both "fixed telephone density per population" and "fixed telephone density per households" indexes. According to Fig. 14, a growth is observed in the values of both indexes, and they returned to their 2008 levels.

⁴ For calculation of the 2010 index were used NSI data of the population census carried out in February 2011.



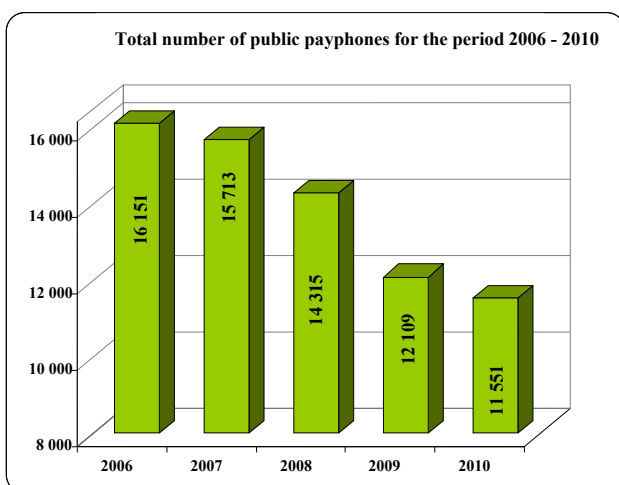
Source: Data submitted to CRC

Fig. 14

With reference to the "carrier selection" service, it must be noted that it is still not widely spread among subscribers of fixed telephony services in Bulgaria. Although in 2010, in accordance with Decision No. 650 of 25 June 2009, BTC published a sample decision for lease of subscriber lines, this service is not yet offered to end users by the undertakings providing the "carrier selection" service. The relative share of subscribers of this service and the share of the traffic generated through the "carrier selection" service of the total generated traffic by subscribers in 2010, remain below 1%.

1.1.4 Public payphones

The number of public payphones and phone booths amounted to 11,551 as of 31.12.2010, which is 4.6% less, compared with the end of the year before (Fig. 15).



Source: Data submitted to CRC

Fig. 15

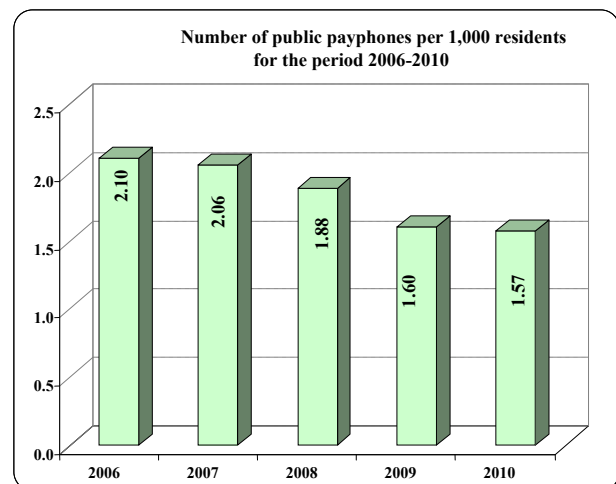


Fig. 16

As Figure 16 clearly shows, the value of the "number of public payphones per 1000 residents" index in Bulgaria remains high.

1.2. Mobile voice telephone services

1.2.1. Market players

At the end of 2010, three undertakings provided mobile voice telephone services via networks of GSM and UMTS standard on the Bulgarian market – "MOBILTEL" EAD, "COSMO BULGARIA MOBILE" EAD, and BTC.

1.2.2. Infrastructure

The table below presents information about the coverage of mobile terrestrial networks of GSM and UMTS standards as of 31.12.2010.

Table 4.

| undertaking | "Mobitel" EAD | | "Cosmo Bulgaria Mobile" EAD | | BTC | |
|------------------------|---------------|--------|-----------------------------|--------|--------|--------|
| | GSM | UMTS | GSM | UMTS | GSM | UMTS |
| coverage by territory | 99.11% | 55.90% | 99.22% | 60.23% | 96.62% | 76.71% |
| coverage by population | 99.96% | 84.87% | 99.98% | 88.96% | 99.99% | 93.43% |

Source: Data submitted to CRC

In 2010, mobile undertakings continued to invest in their UMTS networks, which already cover over 80% of the country's population. At the end of the year, BTC was the undertaking with the largest coverage per population with a mobile network of both UMTS and GSM standards. For a one-year period, the UMTS coverage of the incumbent in terms of territory grew by approximately 60 percentage points, and in terms of population - by almost 40.

1.2.3 Development of the mobile voice telephone services market

Dynamics and development of the market

The total revenue from mobile telephony services declined for a second consecutive year: for the reviewed period, it dropped by 7.7%, reaching BGN 1.94 billion⁵ at the end of 2010.

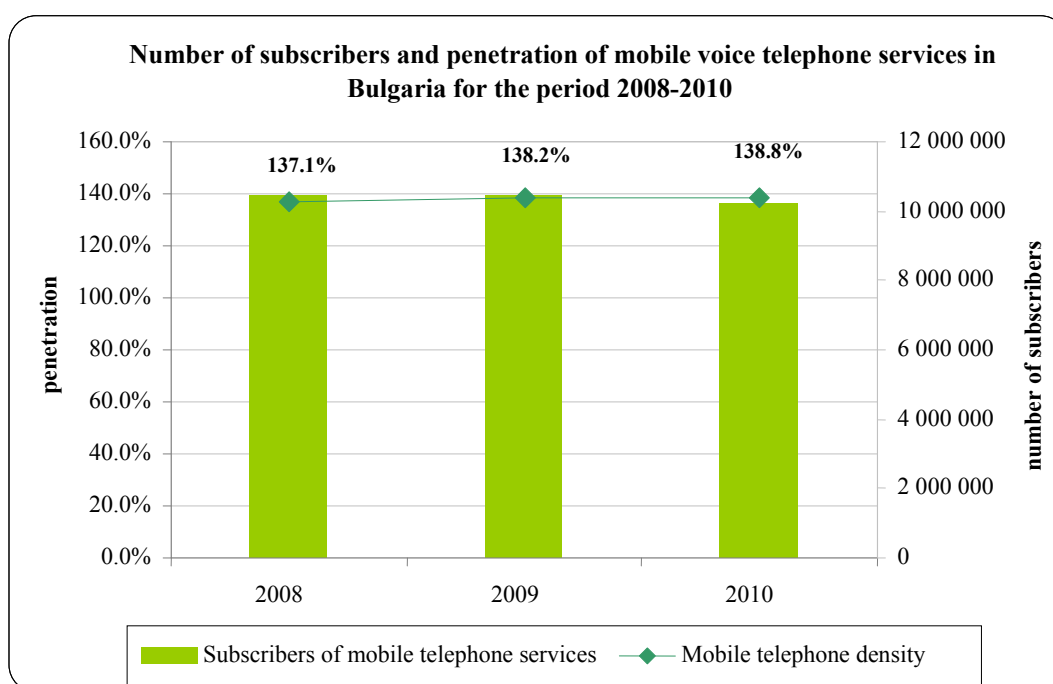
In 2010, the number of mobile telephony service users registered a drop for the first time. At the end of the year, the number of active SIM cards allowing the use of voice services, amounted to 10,199,942⁶ which represents a drop by 2.4% since the end of 2009 (Fig. 17).

Although the number of mobile telephony service users decreased in 2010, mobile

⁵ Includes all revenue from mobile voice telephone services and additional services related to the mobile voice service (such as SMS, MMS, video calls, information services), except for revenue from monthly subscriptions for mobile telephone service provided bundled with other electronic communication services.

⁶ Including the number of active SIM cards allowing the use of voice services and with a 12-month validity of prepaid cards. Excluding the data transfer cards not allowing the making of voice telephone calls.

phone density edged up slightly due to a decline in the country's population⁷.



Source: Data submitted to CRC

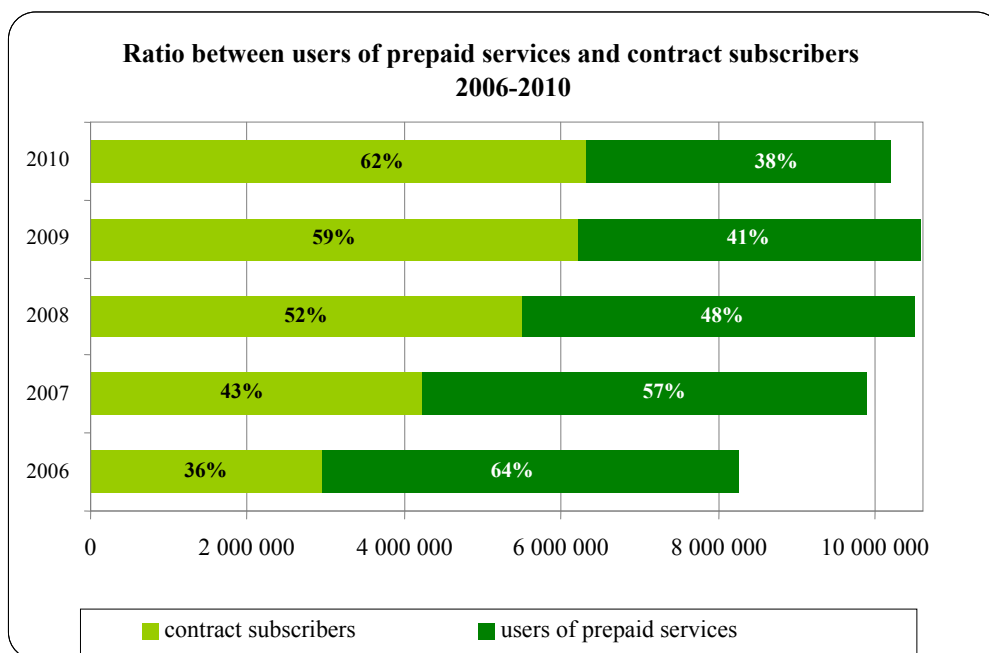
Fig. 17

The decline reported in revenue and subscribers of mobile undertakings is a result of the more unfavourable economic situation in the last two years (characterized by a slowdown of the economic growth, restriction of business expenses, and consumption drop), as well as of long-term effects, such as saturation of the traditional voice services markets and their entering into the maturity stage.

Ratio between users of prepaid services and contract subscribers

Contract subscribers in our country continue to increase at the expense of prepaid services users whose share was down to 38% at the end of 2010.

⁷ The "mobile telephone density" index was calculated as a percentage ratio between the number of active telephone cards and the population. For calculation of the 2010 index were used NSI data of the population census carried out in February 2011.



Note: The 2010 data does not take into account mobile data card services which do not allow voice calls. The ratios for preceding years were calculated on the basis of data concerning all cards, due to the lack of comparative information.

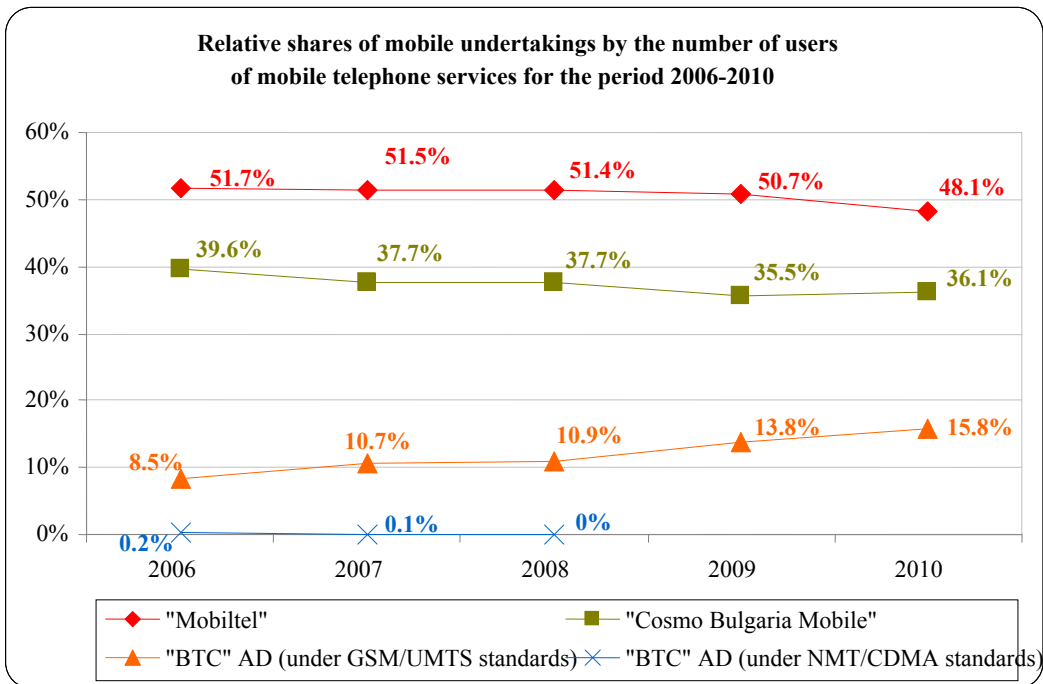
Source: Data submitted to CRC

Fig. 18

It should be noted that over half (52%) of the new subscribers activated during the year, were under contract, while in 2009 they were 45%. At the same time, the number of deactivated prepaid cards increased considerably. This is explained by, on the one hand, the requirement for compulsory registration of prepaid cards, effective as of the start of the year, and on the other hand, the more favourable conditions offered when entering into a contract, including lower call prices and many promotional offers with free minutes and terminal equipment included.

Relative shares

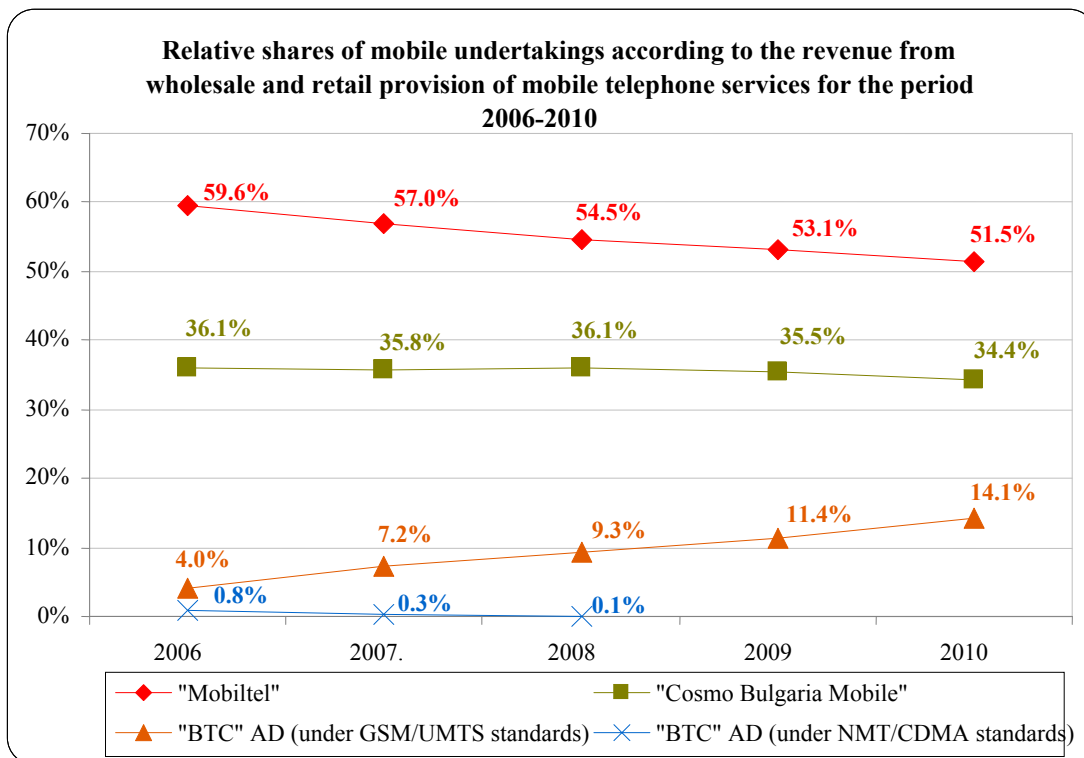
The change in the relative shares of undertakings, calculated both according to the number of subscribers and the revenue from the provision of mobile telephone services for the period 2006-2010, is presented on Figure 19 and Figure 20, respectively.



Source: Data submitted to CRC

Fig. 19

When considering the relative shares calculated according to the number of subscribers⁸, it makes an impression that the shares of BTC and "COSMO BULGARIA MOBILE" EAD rose by 2 and 0.6 percentage points respectively, at the expense of "MOBILTEL" EAD.



Source: Data submitted to CRC

Fig. 20

⁸ Market shares were calculated based on the number of active SIM cards which allow the making of voice calls at the end of the respective year.

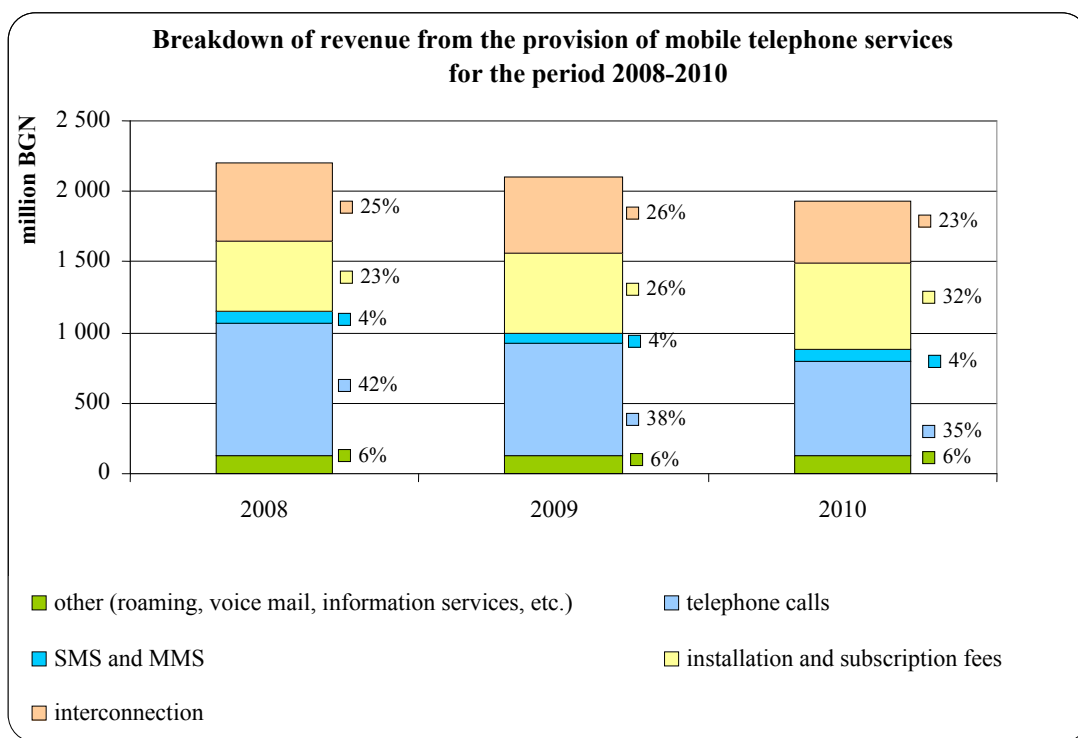
When looking into the relative shares by revenue⁹, cash flows from the provision of mobile voice telephone services are seen undergoing reshuffle. For a one-year period, the market share of the largest undertaking declined by 1.6 percentage points, and that of the second-largest - "COSMO BULGARIA MOBILE" EAD shed 1.1 percentage points. At the same time, the relative share of BTC increased by 2.7 percentage points.

Undertakings with significant market power

With Decision No. 236/17.03.2009, CRC named "MOBILTEL" EAD, "COSMO BULGARIA MOBILE" EAD and BTC as the undertakings having significant power on the wholesale market for voice call termination on their own mobile networks. In accordance with the glide path adopted by CRC, the termination rates on the networks of the three undertakings were gradually decreased, in January and July 2010, respectively.

1.2.4 Distribution of revenue from services provided via mobile networks of GSM and UMTS standards

Figure 21 shows that voice telephony remained the main revenue source for undertakings, as it forms over 35% of the total amount of revenue from mobile services.



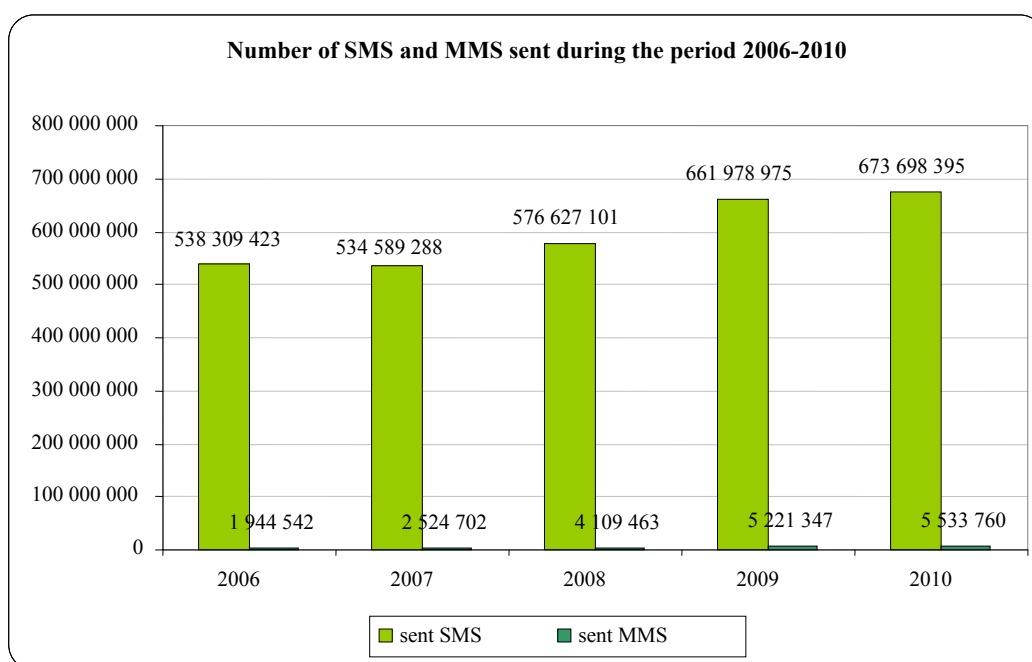
Source: Data submitted to CRC

Fig. 21

The actual share of voice services is even higher because revenue from calls included in the free-of-charge minute plans is reported as revenue from monthly subscription - in 2010, this revenue increased by 6 percentage points and comprised 32% of the total revenue in this category. The share of additional services related to the provision of the telephone service,

⁹ Market shares were calculated based on revenue from mobile voice services and additional services related to the mobile voice service (such as SMS, MMS, video calls, information services, etc.). The 2010 data exclude the revenue from monthly subscriptions for mobile telephone service provided bundled with other electronic communication services.

remained stable. In 2010, a drop was reported in the revenue from interconnection as a result of the decrease of wholesale prices for voice calls termination on mobile networks.



Source: Data submitted to CRC

Fig. 22

The data on Fig. 22 shows that in 2010, the total number of sent multimedia messages (MMS) rose by 6% compared to 2009, while the number of sent short text messages (SMS) was 2% higher than the year before.

Prospects for development

The development of the mobile telephony services segment in the future will focus much more on the redistribution of existing subscribers than on attracting new ones.

From the introduction of the "number portability" service (April 2008) to the end of 2010, some 131,915 numbers were ported, over half of them (52%) last year. However, the subscribers who took advantage of the "number portability" service, represent a very small portion of the total number of subscribers of mobile services (1.3%), which is just 0.8 percentage points more compared to 2009.

The prospects for development of the mobile networks and services segment are related to:

- preservation and intensification of the trend for increase in the number of users of voice telephone services who stop using fixed services and replace them with mobile ones;
- reduction of the user's average monthly costs for mobile telephony services;
- offering many promotions related to discounts on monthly subscription prices, inclusion of additional minutes for outgoing calls, etc.;
- increase in the consumption of mobile telephony services offered bundled with other electronic communication services, as a result of mobile operators' entering into new market segments.

1.3. Voice services provided via electronic communications networks for broadband wireless access by means of radio frequency spectrum (point-to-multipoint networks)

In 2010, services based on the "point-to-multipoint" technology underwent a difficult development, which had a negative impact on the launching and use of these services by the end users.

Out of the five undertakings licensed to build electronic communications networks for broadband wireless access (BWA): "MAX TELECOM" OOD, "TRANS TELECOM" AD, "NEXCOM BULGARIA" EAD, "MOBILTEL" EAD and "CARRIER BG" AD, those who actually performed this activity during the year were: "MAX TELECOM" OOD, "TRANS TELECOM" AD and "NEXCOM BULGARIA" EAD. In April 2010, "MOBILTEL" EAD transferred its authorization to "MAX TELECOM", while "CARRIER BG" AD did not start work at all.

Voice services offered via networks for broadband wireless access (BWA), are services via non-geographic numbers with a national access code of the 099x type, provided by "MAX TELECOM" (code 0999) and "TRANS TELECOM" (code 0996), and services via geographic numbers, provided by "NEXCOM BULGARIA".

As of 31.12.2010, the number of users of voice services with 099x numbers registered a drop of about 60%.

The trend of a sustainable decrease of subscribers using voice services with 099x numbers was most clearly observed with residential subscribers. In 2010, a reduction of about 70% was reported for residential users, and over 50% for business subscribers.

Undoubtedly the financial crisis had a negative impact on the development of the WiMAX technology in Bulgaria, especially on the voice service. The high price of terminal user equipment, insufficient coverage per population and territory, as well as the insufficient investments significantly hamper the mass penetration of this technology.

2. Provision of leased lines services

2.1. Market players

As of 31.12.2010, a total of 45 undertakings notified CRC of their intention to offer the "leased lines" service, including "international leased lines". In 2010, 11 new undertakings notified the Commission that they will start to offer leased lines.

In 2010, "STYLECOM" OOD and "TOP-NET" OOD informed CRC that they cease to provide this activity.

According to the data submitted to CRC, 18 of all undertakings were active on the leased lines market segment, of which 9 provided both wholesale and retail leased lines in 2010 (Table 5).

Table 5.

Undertakings provided the "leased lines" service for the period 2008-2010

| Name of the undertaking | 2008 | | 2009 | | 2010 | |
|---|-----------|----------|-----------|-----------|-----------|-----------|
| | wholesale | retail | wholesale | retail | wholesale | retail |
| Number of active undertakings: | 14 | 6 | 15 | 10 | 16 | 11 |
| "BULGARIAN TELECOMMUNICATIONS COMPANY" AD | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| "BLIZOO MEDIA AND BROADBAND" EAD | ✓ | | ✓ | ✓ | ✓ | ✓ |
| "BULGARTEL" EAD | ✓ | | ✓ | | ✓ | |
| "VARNA LAN" OOD | | | | | ✓ | |
| "VESTITEL BG" AD | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| "GLOBAL COMMUNICATION NET" AD | ✓ | | ✓ | | ✓ | ✓ |
| "NBI SYSTEMS" OOD | | | | | ✓ | |
| "INVITEL INTERNATIONAL BULGARIA" EOOD | ✓ | | ✓ | | ✓ | |
| "INTERBUILD" OOD | | | | ✓ | | |
| "INTERROUTE BULGARIA" EAD | | ✓ | | | | |
| "COSMO BULGARIA MOBILE" EAD | ✓ | ✓ | ✓ | ✓ | | ✓ |
| "MOBILTEL" EAD | ✓ | | ✓ | | ✓ | ✓ |
| "NETGUARD" OOD | | | | ✓ | | |
| "NETERRA" EOOD | ✓ | | ✓ | ✓ | ✓ | ✓ |
| "NETSTAR TELECOM" OOD | | | | | | ✓ |
| "NETWORKS -BULGARIA" OOD | ✓ | | ✓ | | ✓ | |
| "NOVATEL" EOOD | ✓ | | ✓ | | ✓ | |
| "PLADI COMPUTERS" OOD | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| "RACOM" AD | ✓ | | ✓ | | ✓ | |
| "SOFIA COMMUNICATIONS" EAD | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| "SPECTRUM NET" AD | | | ✓ | ✓ | ✓ | ✓ |

Source: CRC Public Registry and data submitted to CRC

2.2. Volume of the market and market shares

In 2010, the revenues from the provision of the "leased lines" amounted to BGN 49.4 million¹⁰, which is a drop of 8.4% in comparison to 2009¹¹.

While the number of retail leased lines in 2010 fell by 16.1% compared to 2009, the number of wholesale leased lines registered a growth of 22.1% for a one-year period (Fig. 23).

¹⁰ Following the provision of additional and corrected information by BTC, necessary for the preparation of the leased lines market analysis, the data concerning the undertaking for 2008 and 2009 were corrected and amended as compared to those contained in the CRC's Annual Report for 2009, which also caused a change in the total volume of the market segment.

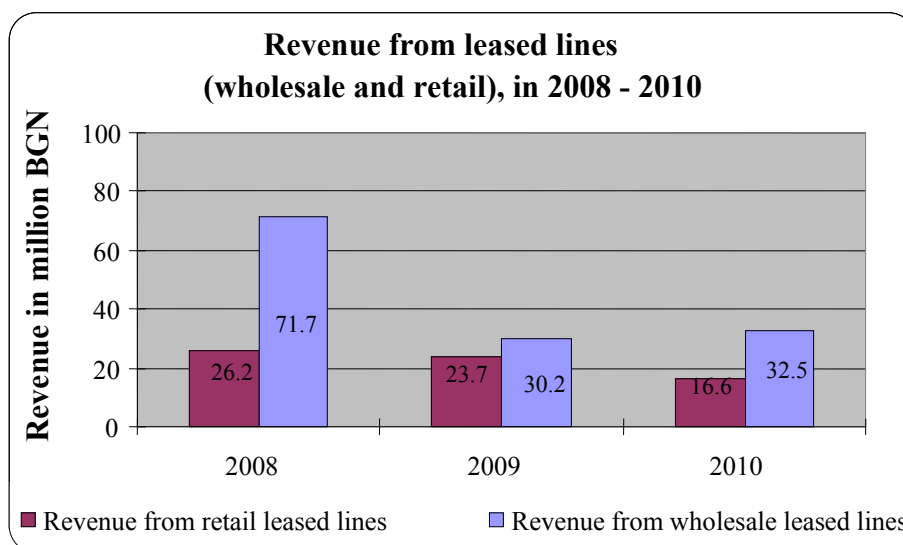
¹¹ According to 2009 and 2010 annual questionnaires, undertakings that offer international leased lines are required to declare only the revenues from the national sections of the lines.



Source: Data submitted to CRC

Fig. 23

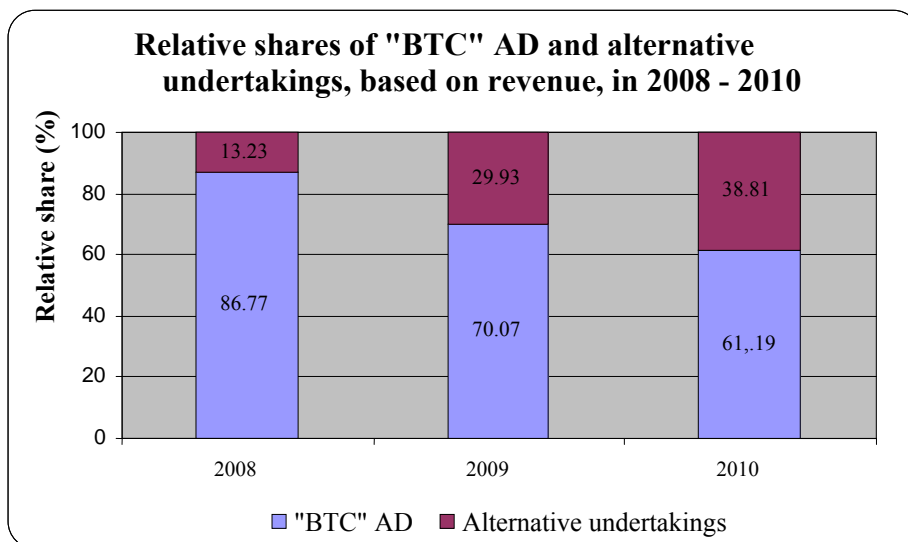
Although the decline in revenues generated from leased lines has been representing a sustainable trend in the last several years, it is mainly due to the drop in revenues from retail leased lines, which in 2010 fell by 29.6%, as compared to 2009. In 2010, revenues from wholesale leased lines registered an increase of 7.5% compared to the year before (Fig. 24).



Source: Data submitted to CRC

Fig. 24

A turn was observed in the trend of the preceding year (2009 compared to 2008), when the wholesale leased lines segment dropped considerably (by 57.9%) in terms of generated revenues. The relative share of the incumbent of the "leased lines" segment (wholesale and retail), calculated based on the revenues generated from this activity, continued to drop at an accelerated rate, thus reaching 61.19% in 2010 (in comparison to 70.07% in 2009 and 86.77% in 2008) – Fig. 25.

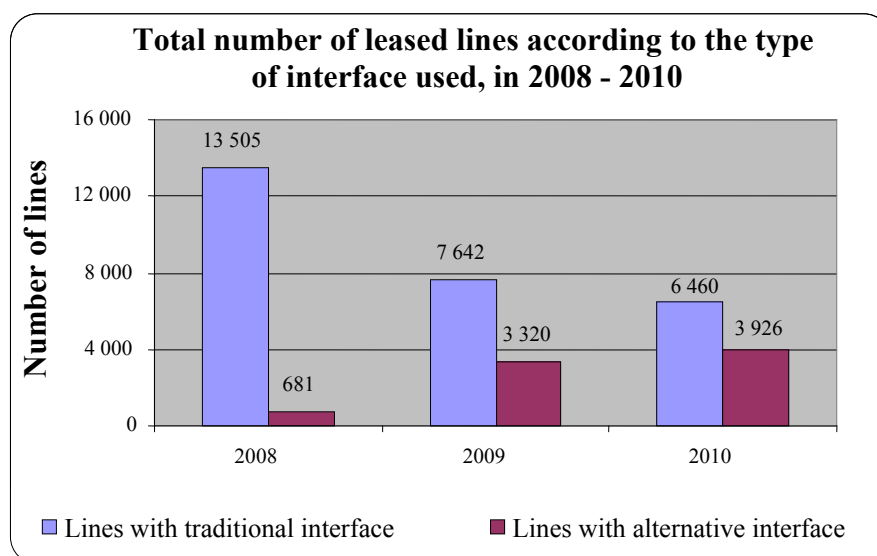


Source: Data submitted to CRC

Fig. 25

The relative share of the incumbent in 2010 was lower both in the retail segment in terms of the number of leased lines, which decreased to 65.65% in 2010 (in terms of revenues the share of BTC in the retail segment retained its level of about 90%), and in the wholesale leased lines segment, where the market share of the undertaking was down to 42.80% in terms of the number of lines, and to 46.55% based on revenues (51.85% in terms of number of lines and 52.94% in terms of revenues in 2009).

In the last years, there has been a growing trend towards supply and demand of leased lines with alternative interface (mainly Ethernet), often at the expense of those with traditional interface (Fig. 26).



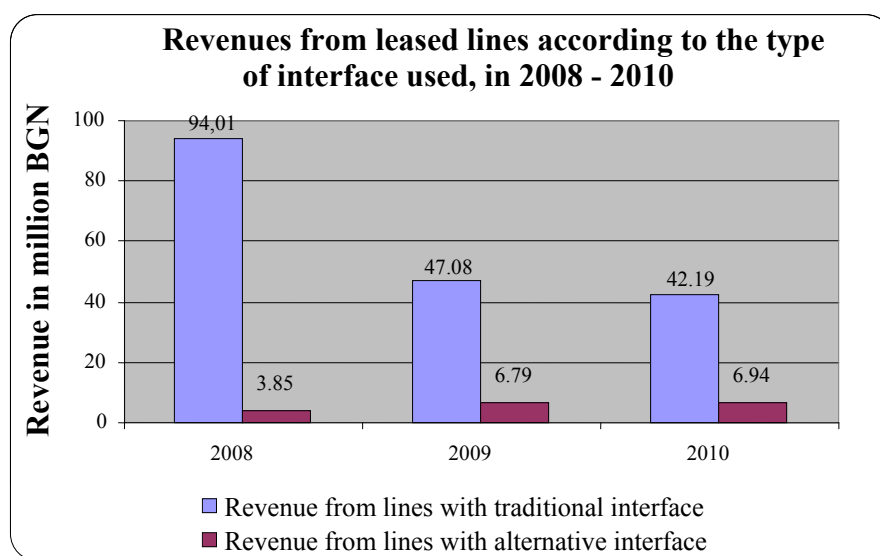
Source: Data submitted to CRC

Fig. 26

As a whole, in 2010 the number of leased lines with alternative interface grew by 18.3%, while those with traditional interface registered a drop of 15.5%, compared to 2009. The decline in the use of lines with traditional interface is evident mainly in terms of retail leased lines, where the decrease in the number of lines was 24.3% in the past year. As for the wholesale lines, a growth was observed in the number of wholesale leased lines with traditional

interface (11.7%), along with a more significant increase in the number of wholesale leased lines with alternative interface (38%, as compared to 2009).

As a result of this migration, revenues from lines with traditional interface dropped significantly in 2010, when compared with 2009 (by 10.4%), which is a particularly evident trend in the revenues from the provision of retail leased lines (a decline of 31.9%). At the same time, revenues from leased lines with alternative interface increased (by 2.2% since 2009), as a result of the increased demand for wholesale leased lines with alternative interface (by 5% since 2009).



Source: Data submitted to CRC

Fig. 27

3. Data transfer and Internet access

Revenue from the provision of data transfer and Internet access in 2010, excluding bundled services, decreased by about 5.1%¹² for a one-year period, and they amounted to BGN 317 million, calculated based on expert assessment. Revenue from undertakings providing both mobile and fixed Internet access and data transfer were taken into account when calculating the volume of the segment.

It is important to note that the reduction in revenue from this segment which excludes bundled services (unlike 2009), is due to the fact that in 2009 considerable revenue was generated from granting, for a long period of time, of access to passive infrastructure (dark fibre). If this revenue is distributed evenly for the period of use, the volume of revenue from the "Data transfer and Internet access" segment remains almost unchanged, compared to 2009.

At the end of 2010, the number of undertakings that provided Internet to end users, was 589. When compared with 2009, the number of active undertakings increased by 10%.

The types of retail Internet access offered in Bulgaria at the end of 2010, together with the number of undertakings providing them, are displayed in Table 6.

¹² The decline in the segment in 2010, compared to 2009, presented in item 4.2 "Structure of the market", is higher (7.5%), since the 2009 data include revenue from bundled services with Internet access included.

Table 6.

| Types of retail access | Number of undertakings providing the service as of 31.12.2010 |
|--|--|
| Dial-up Internet access via analogue and digital phone lines | 1 |
| Dial-up, ISDN Internet access | 1 |
| xDSL access: own network | 1 |
| xDSL access: bitstream | 2 |
| Fixed wireless Internet access (WiMax) | 3 |
| Cable Internet access (CaTV) | 36 |
| Other traditional wireline Internet access | 7 |
| Fiber to the home (FTTH) | 65 |
| Fiber to the building (FTTB) | 124 |
| Satellite access | 0 |
| Other type of Internet access (LAN) | 483 |
| Other type of Internet access (RLAN) | 177 |
| Other type of Internet access | 2 |
| Mobile access via UMTS/HSDPA network | 3 |

Source: Data submitted to CRC

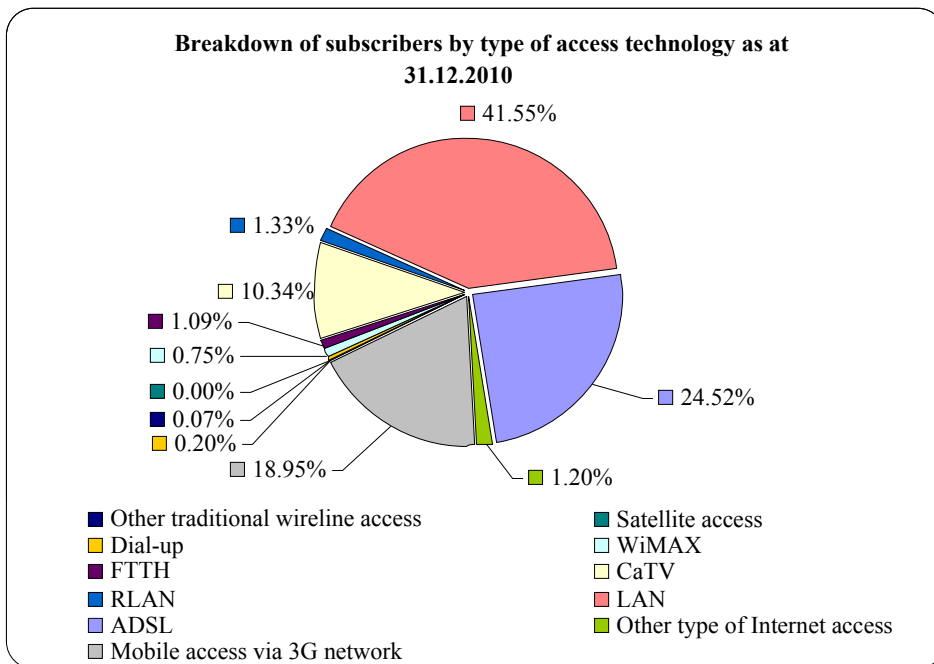
The data presented in Table 6 shows that at the end of 2010, 73% of undertakings providing the Internet service to end users, offer LAN and RLAN access. The number of undertakings providing Internet based on concluded agreements for bitstream access with BTC (the only undertaking that provides retail DSL access via its own network), remained unchanged¹³ in 2010, though 7 undertakings have concluded such agreements with the incumbent by the end of the year.

According to data from the questionnaires of undertakings that submitted information to CRC, at the end of 2010, the number of subscribers of fixed Internet access services, including bundled services, was 1,135,535, which represents a growth of 14%, as compared to the end of 2009. This growth is mainly due to the 84% increase of the subscribers of bundled services with fixed Internet access included, who represented 37% of all subscribers at the end of 2010. The opposite trend was observed in terms of subscribers of individual service related to Internet access, who decreased by 7.2% for a one-year period. In the last years, the consumption of mobile Internet access services also grew dynamically. Active subscribers of the three mobile undertakings who use bundles for Internet access (through USB modems and data cards) via 3G network, were 265,473 at the end of 2010, which is a growth of 120%.

Figure 28 illustrates the breakdown of subscribers by type of access technology (fixed and mobile) for 2010¹⁴.

¹³ 2 undertakings – "Orbitel" EAD and "Nexcom Bulgaria" EOOD

¹⁴ The number of LAN access subscribers was increased by those of FTTN/FTTC/FTTB.



Source: Data submitted to CRC

Fig. 28

The presented information shows that the largest share was held by the LAN access subscribers (41.55%), followed by ADSL subscribers (24.52%) and subscribers of mobile Internet access (18.95%).

The breakdown of subscribers using fixed broadband Internet access in 2010 and 2009, is presented on Figure 29 and Figure 30.

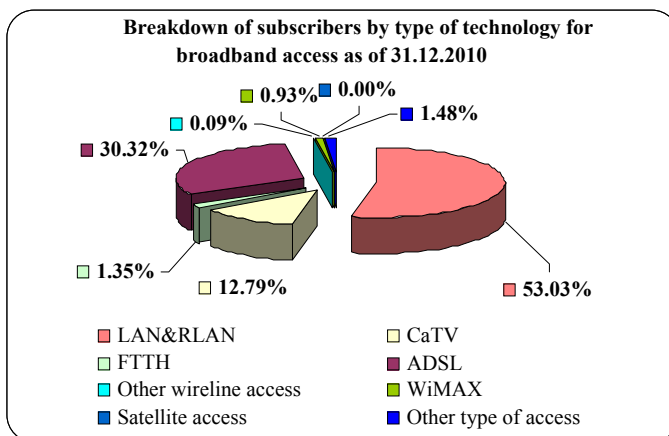


Fig. 29

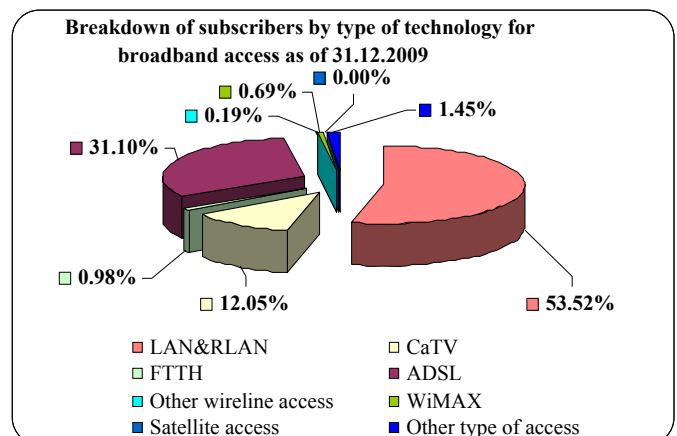


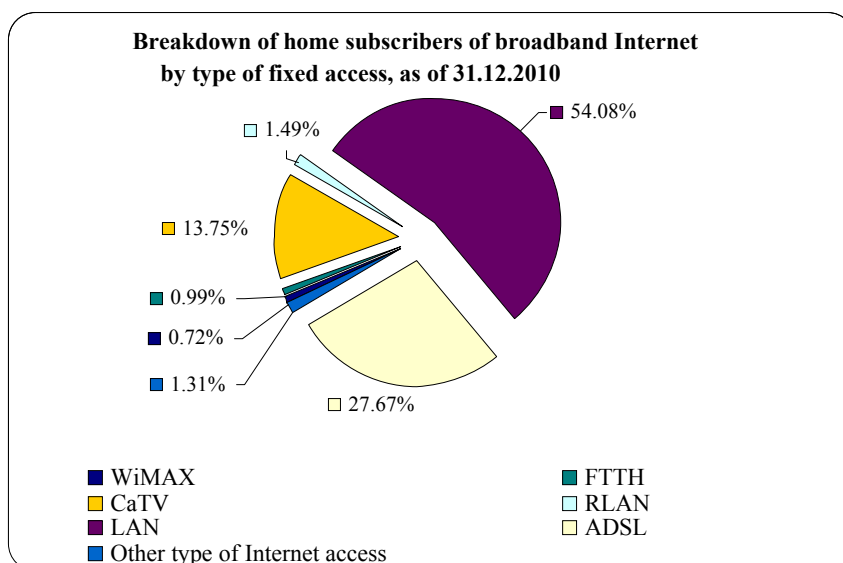
Fig. 30

Source: Data submitted to CRC

As for subscribers of fixed Internet access, it makes an impression that at the end of 2010 the breakdown remained almost the same as of 31.12.2009. The largest share was held by those using LAN access, followed by subscribers of ADSL and CATV.

The penetration of broadband Internet services at the end of 2010, calculated on the

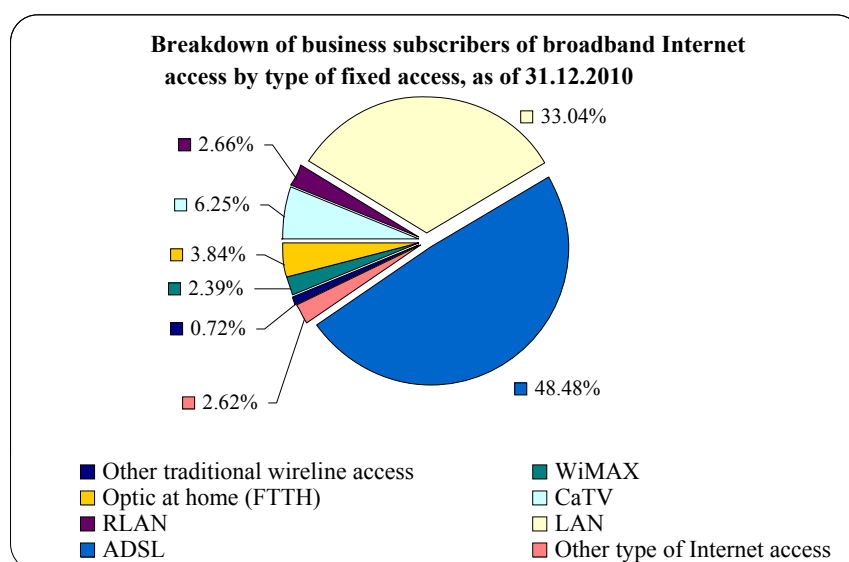
basis of population in Bulgaria¹⁵, was 15.4%, with an increase of 2.4 percentage points against 2009. The number of residential subscribers using broadband fixed Internet access was 988,190, and their breakdown by type of access, is presented on the figure below.



Source: Data submitted to CRC

Fig. 31

The number of business subscribers of broadband fixed Internet access was 144,556. As the breakdown presented on Figure 32 clearly shows, nearly half of the business subscribers (48.8%) used ADSL, followed by subscribers of LAN access. It is impressive that the breakdown of residential subscribers is the opposite – 54.08% are subscribers of LAN access, and about 28% of ADSL.

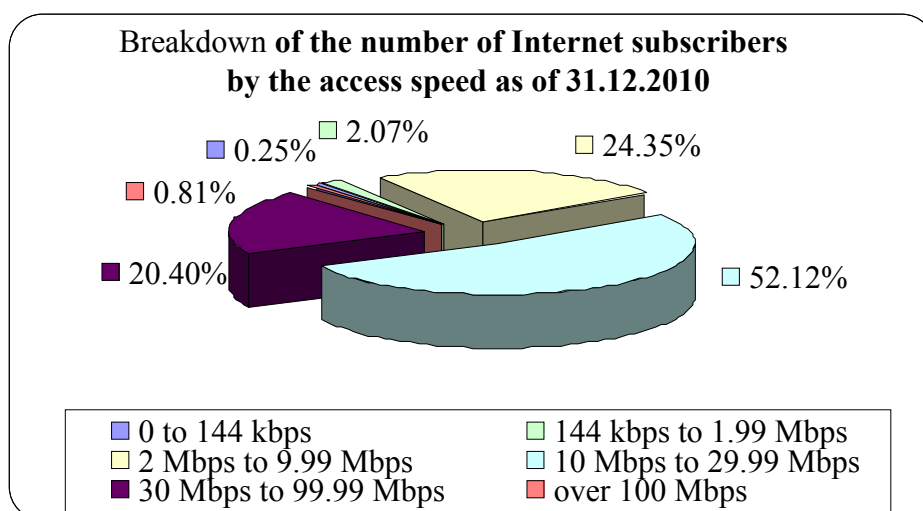


Source: Data submitted to CRC

Fig. 32

¹⁵ For calculation of the 2010 index were used NSI data of the population census carried out in February 2011.

Figure 33 illustrates the breakdown of the number of Internet users by the access speed.



Source: Data submitted to CRC

Fig. 33

In comparison with the 2009 data, the relative share of subscribers using Internet at the lowest speeds (below 144 kbps), decreased significantly, hardly constituting 0.25% of the total number of subscribers. The trend towards a decrease in the subscribers of dial-up access provided by the incumbent, persisted in 2010, with a drop of 13%, compared to the year before. The prevailing part, 73% of all Internet connections in the country, had a speed of over 10 Mbps.

4. Transmission and/or broadcasting of radio and/or TV programs services

4.1. Structure of market segment "Transmission and/or broadcasting of radio and/or TV programs services"

Information on the number of undertakings that provided services in this market segment in 2010, the number of their subscribers/users, and on the volume of revenue generated by them, along with the structure of the segment, is presented in Table 7 and on Figure 34 below:

Table 7.

Number of subscribers/users and revenue by type of transmission and/or broadcasting of radio and/or TV programs services in the segment provided in 2010

| Name of the service | Number of undertakings providing the service in 2010 | Number of subscribers/users as of 31.12.2010 | | Revenue (in million BGN, VAT excl.) ² |
|---|--|--|------------------------------------|--|
| | | Total ¹ | incl. bundled services subscribers | |
| 1. Retail broadcasting of radio and television programs | 368 | 1,688,373 | 215,810 | 276.026 |
| 1.1. Cable television³ | 340 | 1,231,138 | 206,990 | 174.518 |
| 1.2. Satellite television⁴ | 3 | 450,010 | 4,567 | 101.330 |
| 1.3. IPTV | 25 | 7,225 | 4,253 | 0.178 |
| 2. Terrestrial broadcasting of radio and/or television programs ⁵ | 74 | /// | /// | /// |
| 3. Provision of transmission/broadcasting of radio and/or television programs | 15 | 224 | /// | 47.309 |
| 3.1. Transmission of radio and/or television programs services | 4 | 41 | /// | 5.586 |
| 3.2. Transmission of radio and/or television programs services, incl. IPTV wholesale service, provided to other undertakings | 13 | 183 | /// | 41.723 |
| Total | /// | /// | /// | 323.335 |

¹Incl. bundled services subscribers

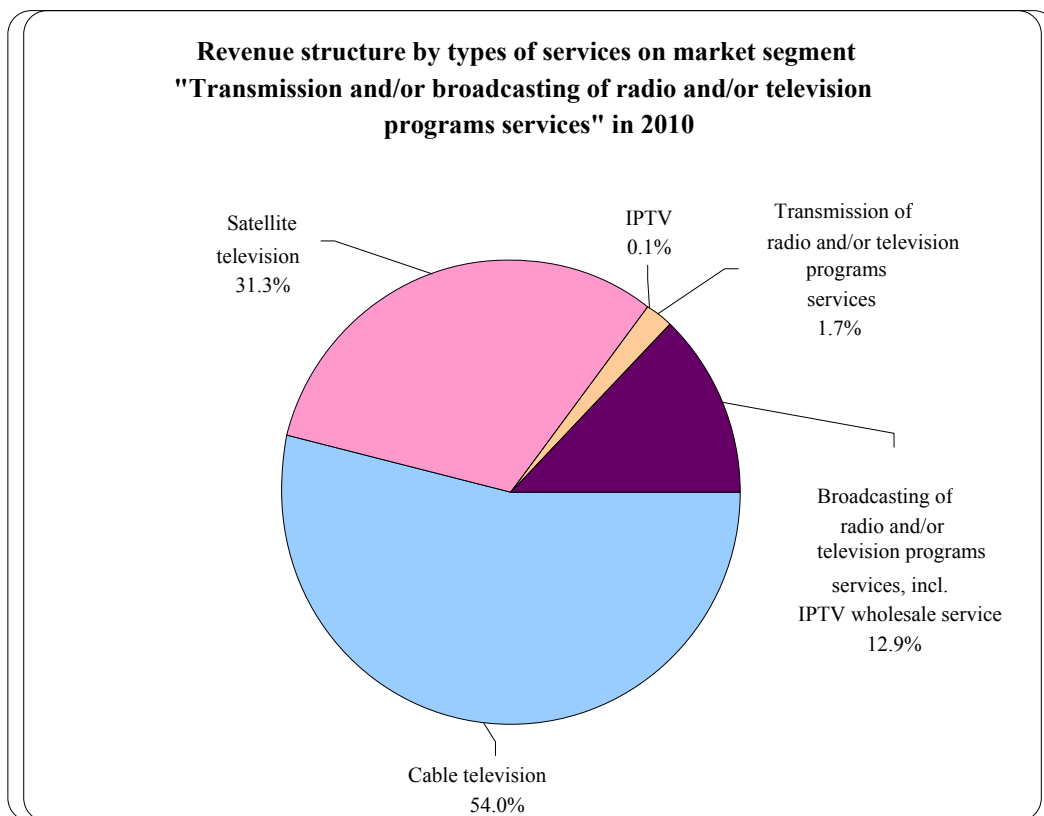
²Excl. revenue from bundled services

³Subscribers and revenue from cable television (excl. bundled services subscribers) were calculated by an expert assessment based on data received at CRC from 79% of the registered undertakings

⁴"INTERAKTIVNI TEHNOLOGII" AD has not provided information about its activity report for 2010 due to termination of activity, according to Decision No.1223/17.11.2010.

⁵ 22 of the undertakings registered in the CRC for the provision of the service have not submitted an activity report for 2010

Source: Data submitted to CRC



Source: Data submitted to CRC

Fig. 34

In 2010, the volume of the market segment "Transmission and/or broadcasting of radio and/or TV programs services" reached BGN 323.34 million, the largest share of the total volume (85.4%) is occupied by revenue from retail provision of services related to broadcasting of radio and TV programs, cable television, satellite television and IPTV.

4.2. Retail broadcasting of radio and TV programs

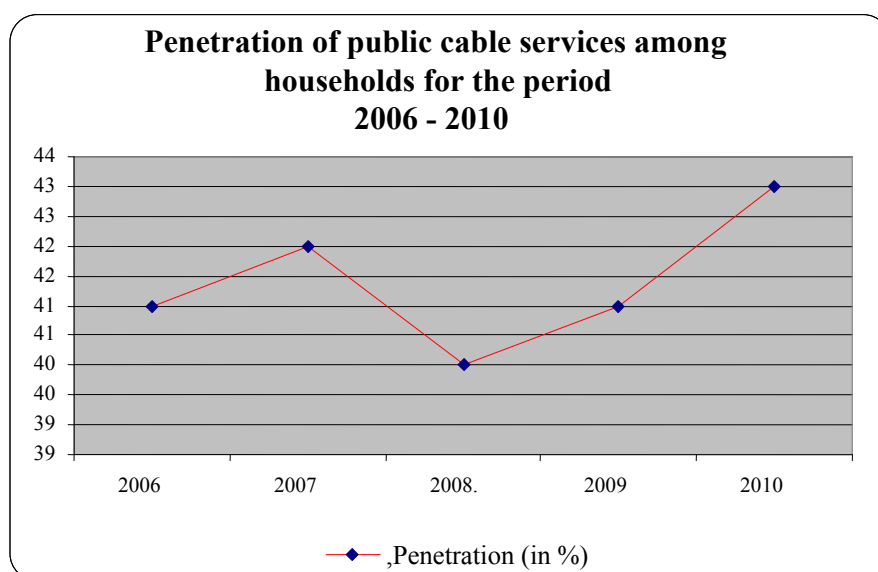
4.2.1. Cable television

In 2010, 43 new undertakings notified the CRC of their intention to provide out public electronic communications via cable network for transmission and/or broadcasting of radio and television programs in accordance with LEC, which represents an increase by about 20%. The number of effacement decisions issued by the regulator, reached 145 in the past year.

In 2010, out of the total 433¹⁶ undertakings registered in the CRC, 340 actually provided cable television, which is approximately 100 less than 2009. The trend towards reduction in the number of undertakings was accompanied by an intensified competition between them in terms of the quality and diversity of services offered.

Subscribers and revenue from cable television

According to an expert evaluation, based on data submitted to the CRC by 79% of registered undertakings, the total number of subscribers of cable television in Bulgaria exceeded 1,200,000 as of 31.12.2010, which is 3% more compared to 2009. The penetration of cable television among Bulgarian households grew by 2 percentage points, thus reaching 43% at the end of the year (Fig. 35).



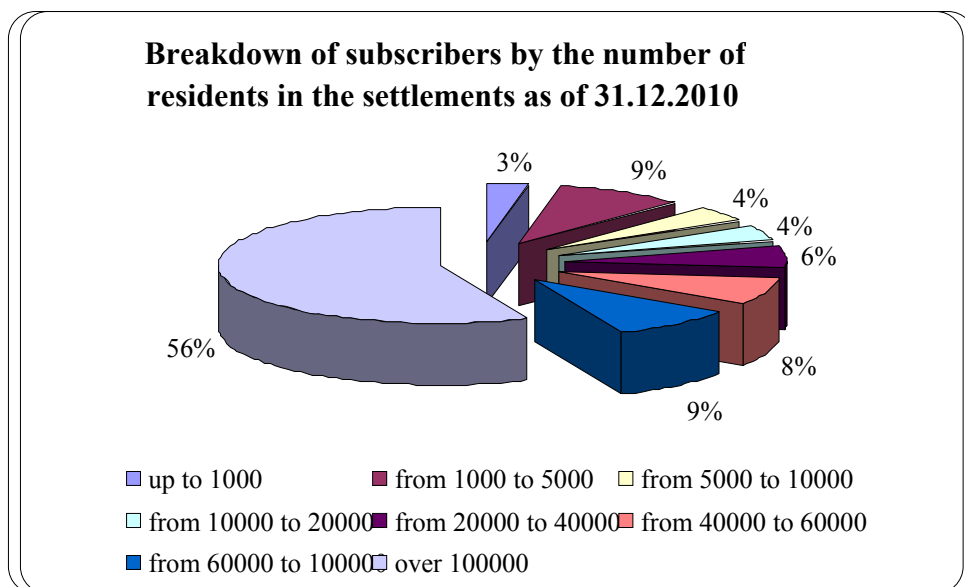
Source: Data submitted to CRC

Fig. 35

The high concentration of population in cities, on the one hand, and the higher living standard there, on the other, determines the larger relative share of population using cable television offered in cities – more than half of the cable television users were concentrated in

¹⁶ Total number of undertakings providing public electronic communications through cable network for transmission and/or broadcasting of radio and television programs as of 31.12.2010, excluding those effaced during the year.

cities with population of over 100,000 residents, and the relative share of subscribers in towns with population of over 60,000 residents (cumulative), was 65%. In small settlements with up to 5,000 residents, this index remained unchanged, as compared to the year before - 12% (Fig. 36).

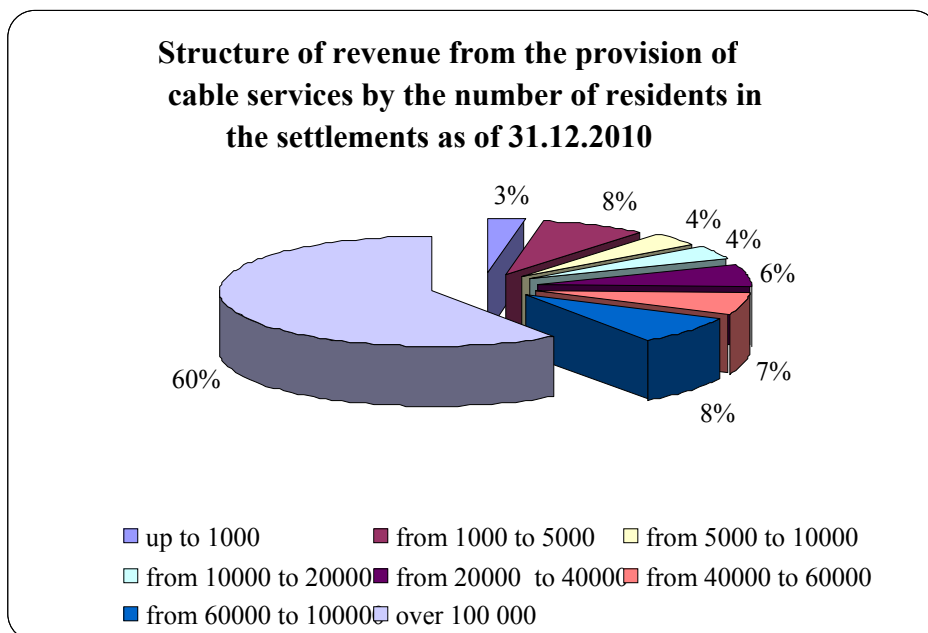


Source: Data submitted to CRC

Fig. 36

According to an expert evaluation, based on data submitted to the CRC by 79% of registered undertakings, the volume of total revenue generated from cable television subscribers amounted to BGN 174.5 million, which is nearly 20% less, compared with 2009¹⁷.

Figure 37 presents the structure of revenue from the provision of public electronic services through a cable network for transmission and/or broadcasting of radio and television programs.

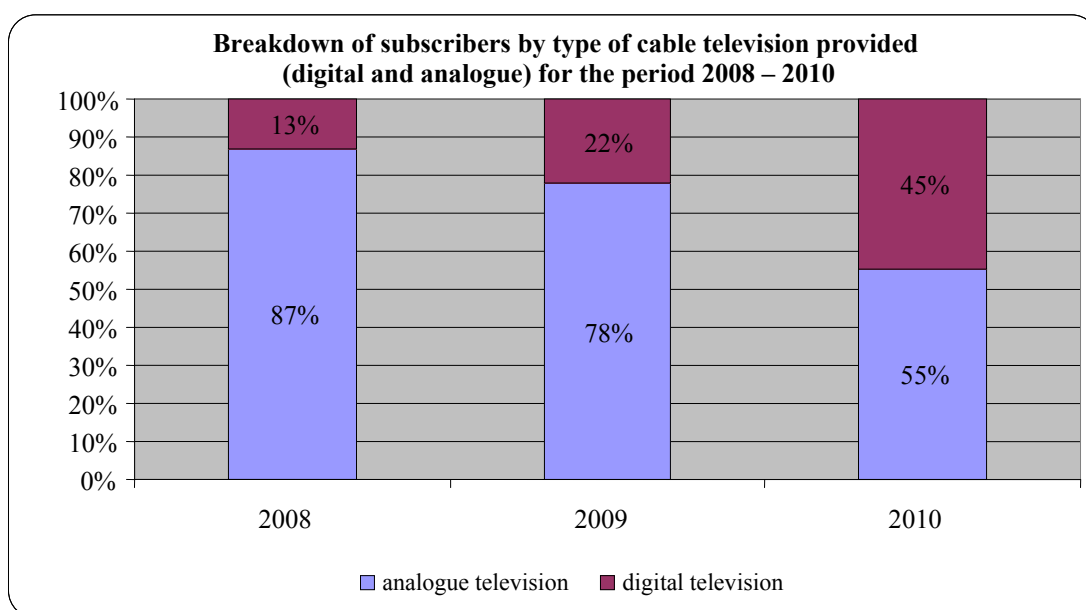


Source: Data submitted to CRC

Fig. 37

¹⁷ The volume of total revenue from cable television excludes revenue from the provision of bundled services.

The number of undertakings providing digital television programs to subscribers was nearly 1.2 times up since 2009, as it reached 56; however, the main share of revenue from the provision of cable television in 2010 was still from broadcasting of analogue programs - 56%. The trend observed during the last years towards an increase in the number of subscribers of digital cable television at the expense of the analogue one, is due to the higher quality and more favourable conditions offered by undertakings, and also to the technology development in terms of terminal devices which allow and stimulate a growing part of cable television users to replace the traditional analogue signal with a digital one. The relative share of subscribers receiving cable television in a digital form grew by 23 percentage points, compared to 2009, covering 45% of the total number of cable television subscribers (Fig. 38). It should be noted that due to the growing interest towards digital television programs, more undertakings reorient their activity in this direction.



Source: Data submitted to CRC

Fig. 38

4.2.2. Satellite television

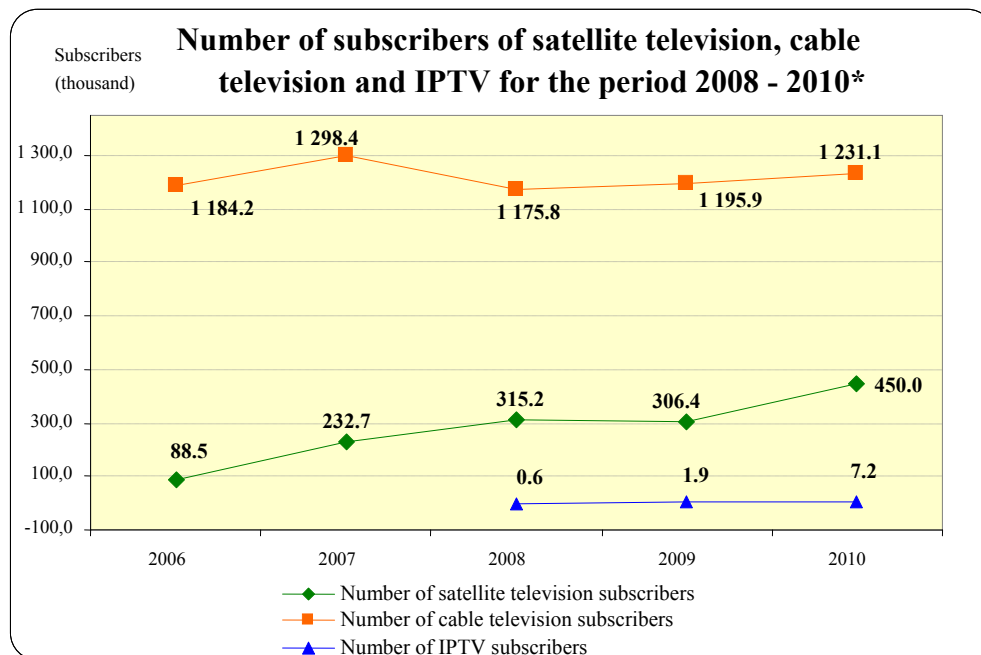
At the end of 2010, BTC launched an activity related to the provision of satellite television, thus joining the two main players in this market segment - "BULSATCOM" AD and "INTERAKTIVNI TEHNOLOGII" AD, as a result of which the number of undertakings licensed by CRC to provide this service (and actually provided it in 2010), was increased from 2 to 3. At the same time, with Decision No. 1223/17.11.2010, CRC terminated the license of the long-time market player " INTERAKTIVNI TEHNOLOGII" AD for provision of the service. By Decision No. 1224/17.11.2010 of CRC, as of the start of 2011, "SATELLITE BG" AD will compete with the other two players on the market for attracting subscribers of the market niche freed by "INTERAKTIVNI TEHNOLOGII" AD, as well as new ones.

Although one of the main players in this segment exited the market in the past year¹⁸, the volume of revenue and the number of subscribers of the service continues to grow, as the total volume of revenue from the provision of satellite television as an individual service reached BGN 101.3 million, and the number of subscribers - 450.0 thousand respectively, including subscribers of satellite television provided bundled with other electronic

¹⁸ As at 31.12.2010, " INTERAKTIVNI TEHNOLOGII" AD has been removed from the CRC Registry and has not provided activity report for 2010.

communication services. In absolute terms, the revenue increase in the past year was BGN 27.7 million higher (37.7%) than the 2009 revenue.

Following the registered decline of 2.8% in the number of satellite television subscribers in 2009 versus the year before, this index registered a growth of 46.9% in 2010, which in absolute terms means 143.6 thousand subscribers more. Penetration of satellite television service among households amounted to 15.8%, registering a growth of 6 percentage points as compared to 2009, when the penetration reported was 10.5%¹⁹. To compare with, penetration of cable television in 2010 was 43% or up by 2 percentage points since the preceding year, while that of IPTV was 0.3% (Fig. 39).



* There is no data available to CRC about the number of IPTV subscribers for the period 2006-2007

Source: Data submitted to CRC

Fig. 39

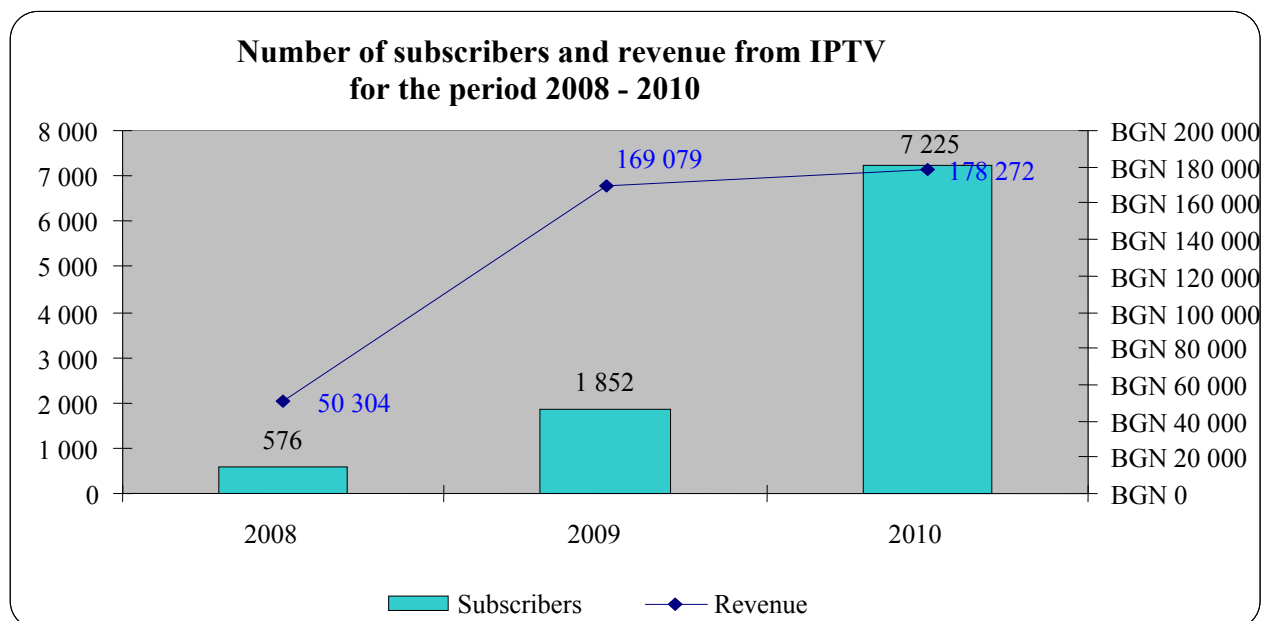
The share of subscribers of bundled services with satellite television from the total number of users of this service, hardly made up 1%, yet it is most likely to grow in the following years, considering the observed trend towards increased offer of bundled services as a whole on the electronic communications market, and also due to the wide range of electronic communication services provided by BTC, apart from satellite television. In this respect, it could be expected that the intensifying competition on the satellite television market will focus on attracting new users by means of a diverse program content provided to subscribers, and also through more diverse bundled services with satellite television included, which are more favourable for subscribers.

4.2.3. IPTV

The television delivered to end users through a platform based on Internet protocol (IPTV) has gained greater popularity in the past years. During the period under review, the number of undertakings providing this service was 25, and another 22 have declared their intention to start offering it in 2011. The number of subscribers as of 31.12.2010 was a little over 7,200, which is more than 12 times more, as compared to 2008 and 4 times more versus

¹⁹ The number of households used to calculate the index was taken from the last official census, 2011.

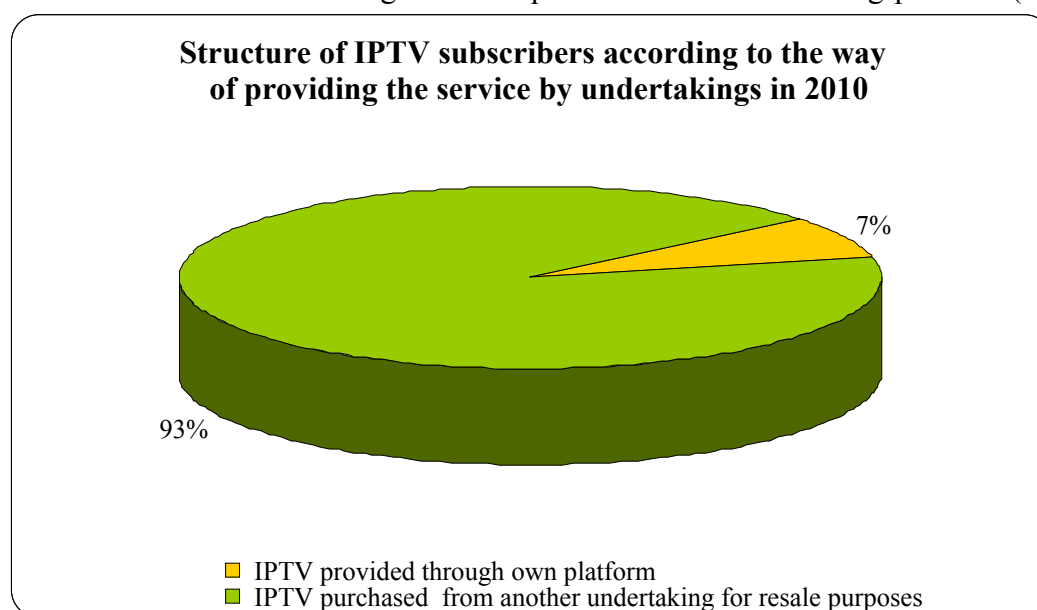
2009, while revenue grew by 5%²⁰ since 2009 (Fig. 40). The increased interest of end users in this service is due to a number of advantages of the IP television over the traditional cable and satellite television, some of them being the service interactivity, the two-way connection and the possibility for integration with other IP-based services (Internet and VoIP).



Source: Data submitted to CRC

Fig. 40

The following chart presents the structure of IPTV subscribers according to the way of providing the service by undertakings. 93% of IPTV users receive the service through a resale. The purchase of IP-based television service and its resale to end users is a preferred method for undertakings-providers, in respect of lower costs, incl. for maintenance of own platform and settlement of copyright and related rights for radio and television programs. Only 7% of subscribers receive the service through the own platform of the undertaking-provider (Fig. 41).



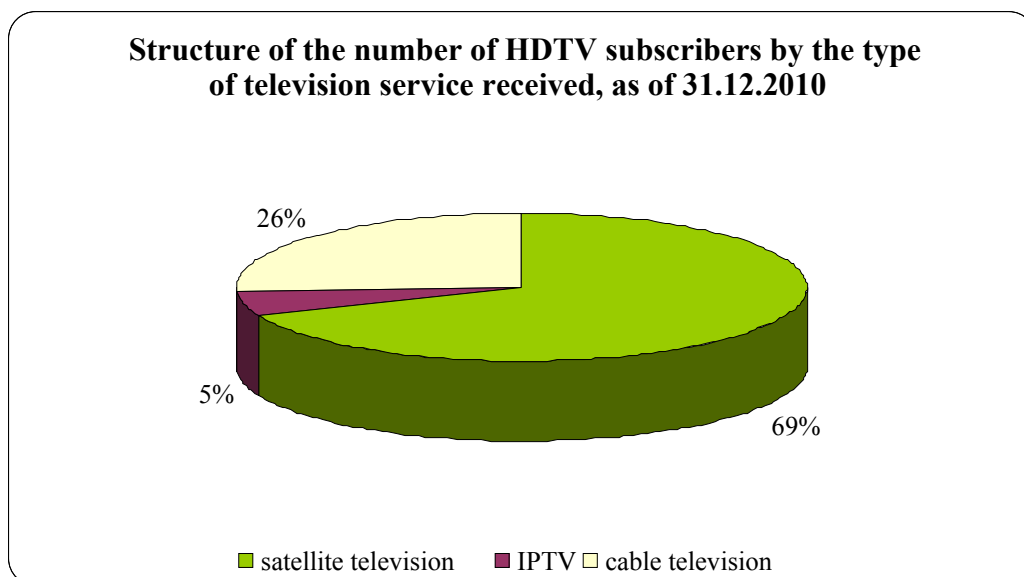
Source: Data submitted to CRC

Fig. 41

²⁰ The volume of total revenue from IPTV excludes revenue from the provision of bundled services.

4.2.4. Value-added services – HDTV and Pay-Per-View (PPV)

The high-definition television (HDTV²¹) is getting more and more popular among users of television services. The chart below shows the structure of subscribers using this form, according to the type of television service they receive. The greatest share is held by satellite television users – 69%, followed by cable television users – 26%, and IPTV users – 5% (Fig. 42).



Source: Data submitted to CRC

Fig. 42

The service "Pay-per-View" (PPV)²², which in the last several years has entered the Bulgarian market at quick rates, is now offered only by undertakings performing activity for provision of broadcasting of radio and television programs services via cable networks, and as of 31.12.2010 the number of subscribers of this service was below 5000.

4.3. Terrestrial radio relay transmission and terrestrial broadcasting

In 2010, revenue of undertakings performing activity for terrestrial broadcasting of radio and television signals amounted to BGN 38.7 million. The main share - 95% of this revenue was generated from the provision of broadcasting of radio and television programs services. The remaining 5% was earned from the provision of program transmission services.

4.3.1. USW/FM broadcasting

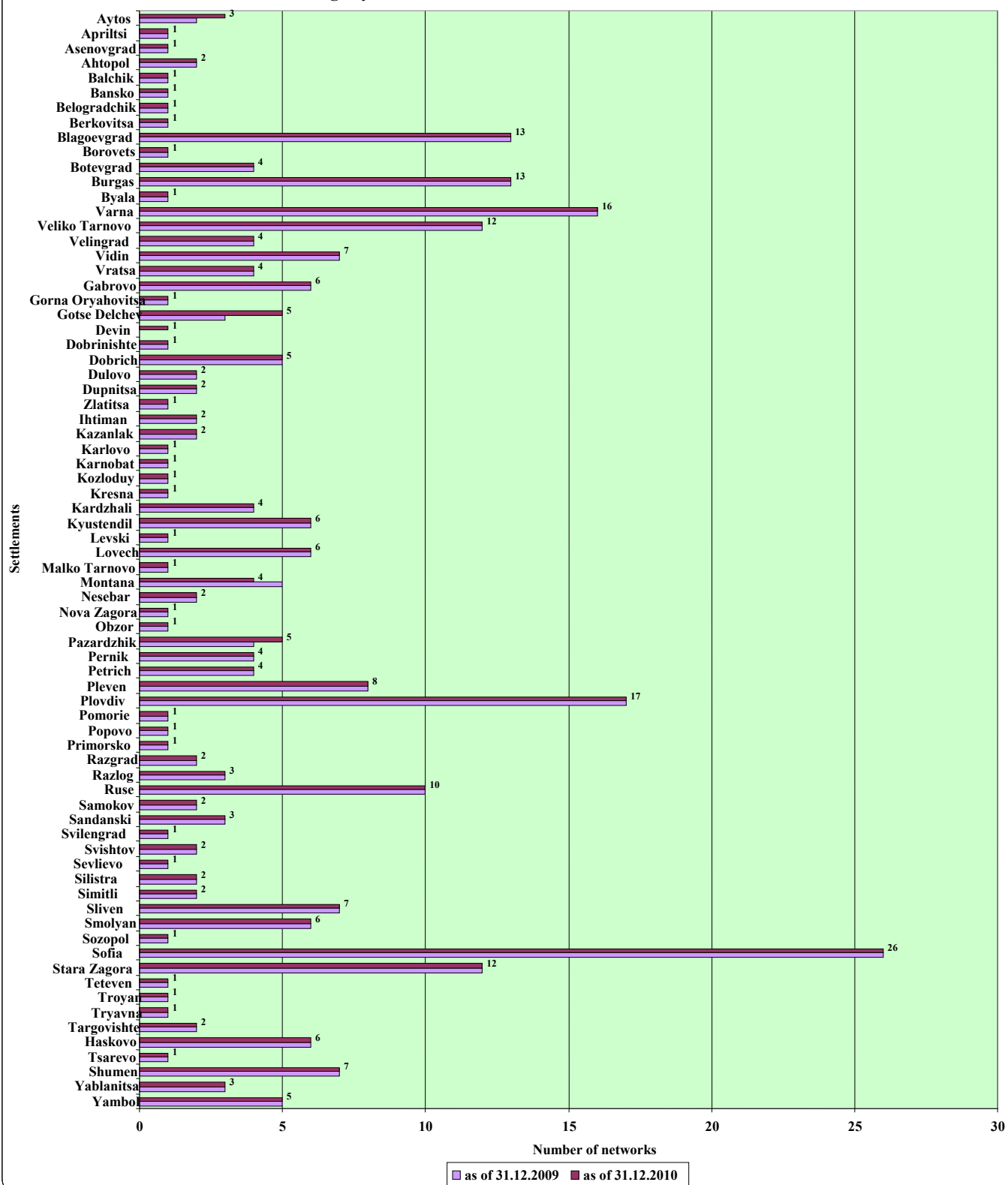
At the end of 2010, a total of 81 undertakings were licensed for the provision of terrestrial broadcasting with local coverage, and the number of issued licenses totalled 292.

Figure 43 presents the breakdown of public electronic communication networks for broadcasting with local coverage by settlements as of 31 December 2009 and 2010. As of the end of 2010, 34.6% of the undertakings performed activity in more than one settlement.

²¹ A digital television standard supporting a format that allows higher quality transmission and higher resolution in comparison with the traditional analogue or standard digital television.

²² A system through which cable television subscribers pay to watch a particular sport event, film or special program broadcasted simultaneously for everyone who have paid in advance.

Breakdown of public electronic communication networks for broadcasting with local coverage by settlements as of 31.12.2009 and 31.12.2010



Source: CRC

Fig. 43

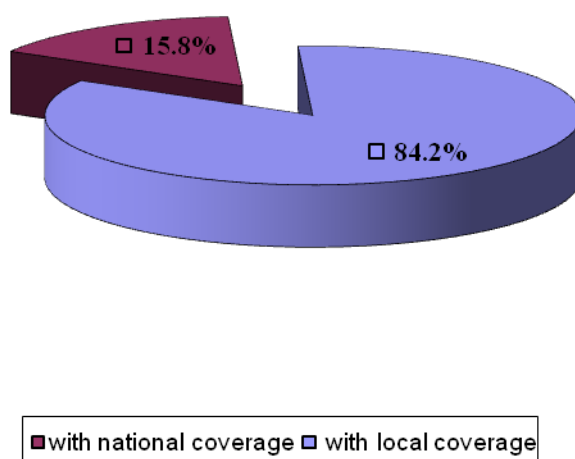
The achieved coverage by population of the BNR programs as of 31.12.2010 was 100%, and of "DARIK RADIO" AD – 95%.

4.3.2. Television broadcasting

As of 31.12.2010, a total of 19 undertakings were entitled to provide electronic communications through the licenses issued to them for terrestrial analogue broadcasting of television signals, as 16 of them were with local coverage.

"BULGARIAN NATIONAL TELEVISION" (BNT), "BTV MEDIA GROUP" EAD and "NOVA BROADCASTING GROUP" AD had licenses with national coverage.

Breakdown of licensed operators providing terrestrial analogue broadcasting of television signals at the end of 2010, by coverage



Source: CRC

Fig. 44

The achieved as of 31.12.2010 coverage by population of the national programs of the three undertakings with national coverage of networks was 98% for BNT, 97.7% for "BTV MEDIA GROUP" EAD and 80% for "NOVA BROADCASTING GROUP" AD.

By CRC Decision of 10.06.2010, the authorisation for the use of an individually assigned scarce resource - frequency spectrum for the provision of electronic communications through an electronic communications network for terrestrial digital broadcasting on the territory of Sofia city, under DVB-T²³ technology, was transferred from BTC to "NURTS BULGARIA" AD. Thus, at the end of 2010, the newly incorporated company "NURTS BULGARIA" AD was the only undertaking holding authorisation for terrestrial digital broadcasting of television signals under DVB-T standard for the territory of Sofia.

4.4. Wholesale provision of transmission/broadcasting of radio and/or TV programs and IPTV

In 2010, a total of 15 undertakings provided wholesale transmission and/or broadcasting of radio and/or television programs services, and revenues earned from them

²³ DVB-T (Digital Video Broadcasting-Terrestrial) – a standard for terrestrial digital broadcasting of television signals

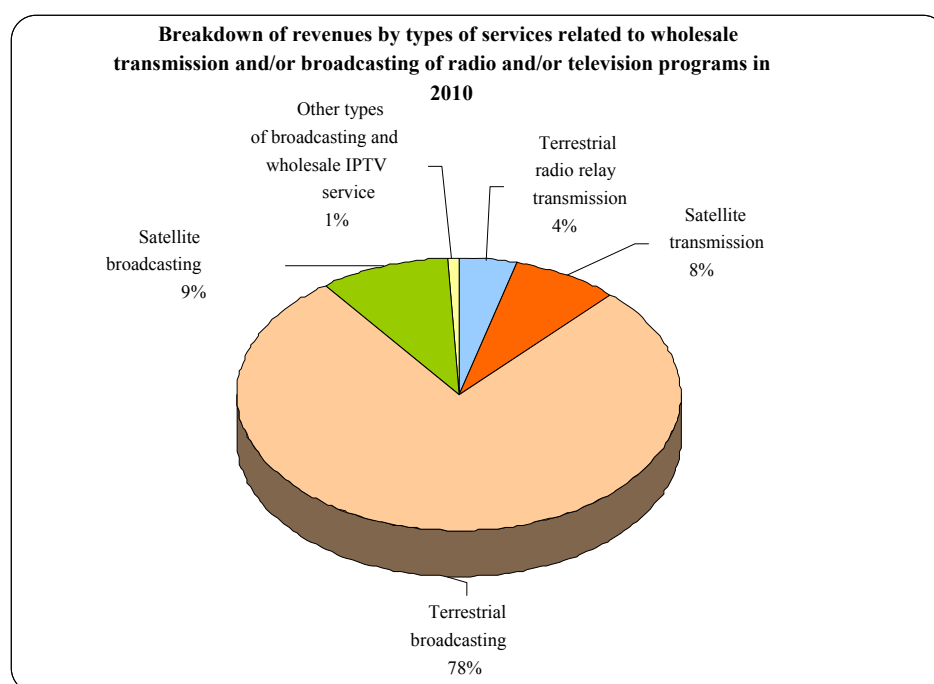
amounted to BGN 47.3 million.

A detailed information on the number of undertakings which in 2010 provided wholesale transmission and/or broadcasting of radio and/or television programs services, the number of users of these services and the volume of revenues generated from them, as well as on the structure of the above services' market, is displayed in Table 8 and on Figure 45 below:

Table 8.
Number of subscribers/users and revenues from the provision of wholesale transmission and/or broadcasting of radio and/or television programs services, incl. wholesale IPTV services, in 2010

| Types of services for wholesale transmission and/or broadcasting of radio and/or television programs | Number of undertakings providing the service in 2010 | Number of subscribers/users of the service as of 31.12.2010 | Revenues from the service in 2010 (in million BGN, VAT excl.) |
|---|--|---|---|
| 1.1. Transmission of radio and/or television programs services, incl.: | 4 | 41 | 5.586 |
| 1.1.1. Terrestrial radio relay transmission | 2 | 25 | 1.937 |
| 1.1.2. Satellite transmission | 3 | 16 | 3.649 |
| 1.2. Broadcasting of radio and/or television programs services, incl. wholesale IPTV service provided to other undertakings, incl. : | 13 | 183 | 41.723 |
| 1.2.1. Terrestrial broadcasting | 7 | 115 | 36.806 |
| 1.2.2. Satellite broadcasting | 3 | 25 | 4.558 |
| 1.2.3. Other types of broadcasting of radio and/or television programs, incl. wholesale IPTV service | 4 | 43 | 0.359 |
| Total | 15 | 224 | 47.309 |

Source: Data submitted to CRC



Source: Data submitted to CRC

Fig. 45

The data clearly shows that the largest share of the total volume of revenues from the provision of wholesale transmission and/or broadcasting of radio and/or television programs services was occupied by the provision of terrestrial broadcasting – 78%, while the smallest share (1%) was held by wholesale IPTV service and the provision of other type of broadcasting (cable) of radio and/or television programs.

5. Bundled services

Pursuant to item 79 of the supplementary provisions of LEC, the term "price bundle" is defined as a bundle of two or more services with prices different from the price of each service when offered outside the bundle.

The Appendix to CRC Decision No. 650/25.06.2009, for the purpose to analyse the markets of access at a fixed location and publicly available telephone services provided at a fixed location, contains a detailed description of the terms "tied services" and "bundled services", based on the instructions and recommendations²⁴ of the EC and the European Court practice. According to the description given, bundled services (bundling) include two or more electronic communications services offered jointly by any given undertaking, as services are offered under fixed, previously determined proportions and conditions. Generally, bundled services divide into two types: "pure bundle" or "mixed bundle" which differ in terms of whether the user has the option to purchase any of the bundled services separately. Tied services (tying), on their part, means that a service is offered only if purchased together with another service, as the latter can also be purchased separately.

It should be taken into account that the above information does not pertain to the cases of offered "pure bundles", the most common of which is the provision of access to a public telephone network and publicly available telephone services at a fixed location.

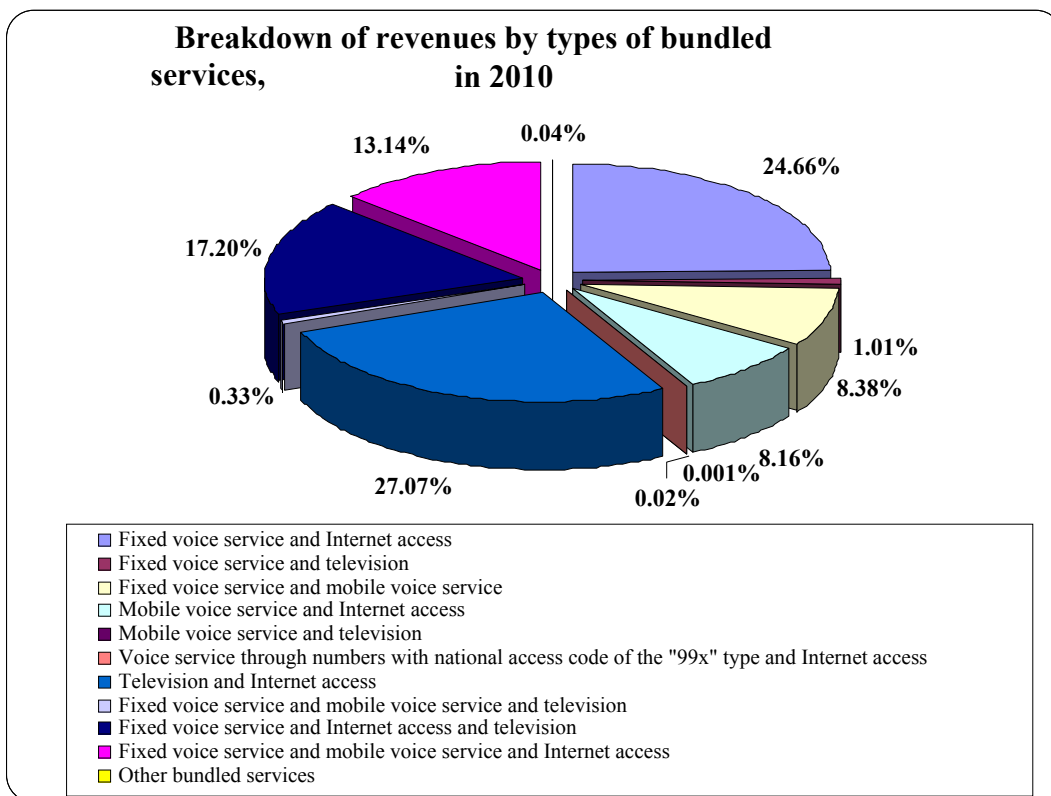
Aiming at an unambiguous interpretation of the term and collection of correct information from undertakings operating in the electronic communications sector, for the purposes of the Annual Report, CRC adopted the bundled service definition as a service, which includes two or more electronic communications services offered jointly by any given undertaking (at a common price), as services are offered under fixed, previously determined proportions and conditions.

From the data on undertakings which have been providing public electronic communications in Bulgaria for the last three years, it is clear that the subscribers' interest in bundled services has been growing due to the facilities offered to the end user. The main advantages for bundled services' subscribers are as follows: one provider of several services which saves time spent on service and payment of monthly fees, as well as lower prices for the bundle, as compared to the individual use of each separate service.

Revenues²⁵ (from installation fees and monthly subscription) generated by undertakings providing bundled electronic communication services at the end of 2010, exceeded BGN 100.7 million. The relative share of revenues from installation fees was only 0.31% of the total volume of revenues from bundled services. The chart below displays the breakdown of revenues by types as of the end of 2010.

²⁴ Appendix to CRC Decision No. 650/25.06.2009, pp. 168-172

²⁵ Without revenue from out-of-bundle consumption when the provided bundled services include voice telephone services.



Source: Data submitted to CRC

Fig. 46

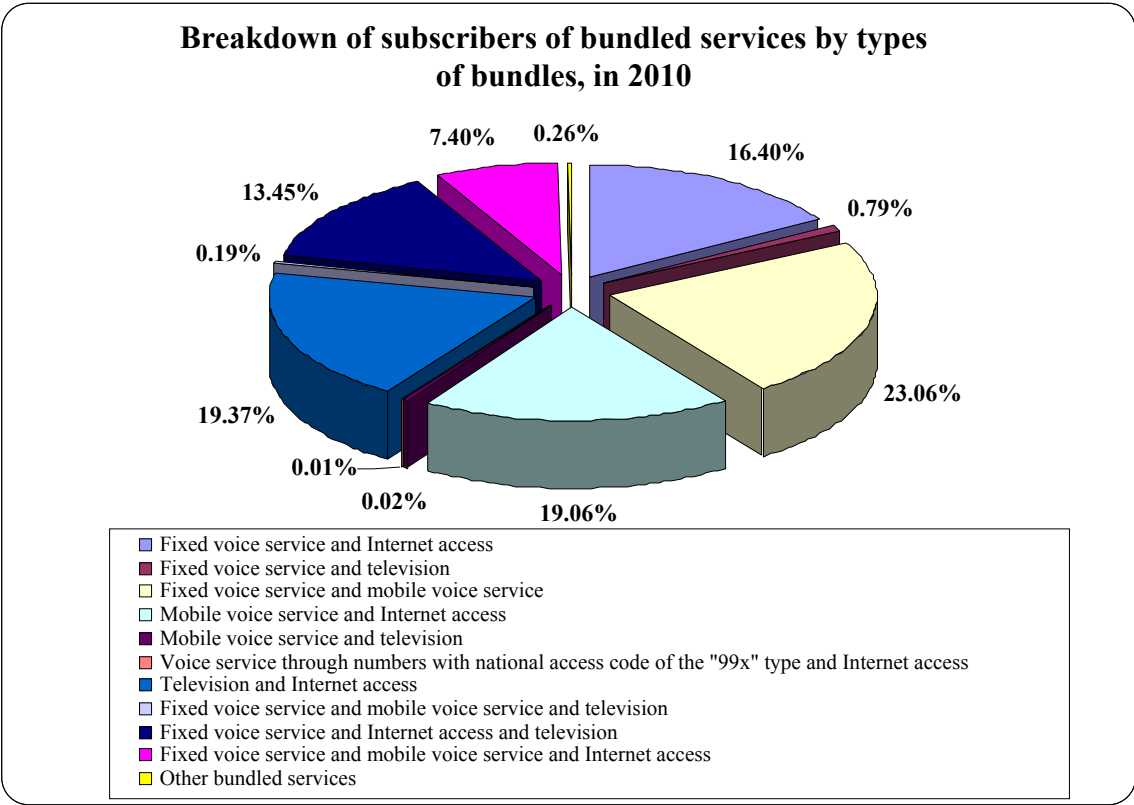
Four types of bundled services formed 82% of the total volume of revenues generated from bundled services at the end of the reviewed period. The greatest relative share was held by revenues from the Triple Play service, which includes bundled television and Internet access (27.07%). Fixed voice service combined with Internet access stood at second place (24.66%). With a relative share of 17.2% were revenues from the Triple Play service, comprising fixed voice service, Internet access and television, followed by bundled fixed voice service, mobile voice service and Internet access - with 13.14%.

According to data of the undertakings providing public electronic communications in Bulgaria, the number of bundled services' subscribers exceeded 639.2 thousand at the end of 2010, which is more than a double increase compared to 2009 and more than 7 times up versus 2008. Despite the high rate of growth for bundled services' users, the share of subscribers, as a percent of the population, remained low – 8.7%²⁶. However, when compared to the end of 2009, the "penetration by population" index has increased by 5 percentage points. At the end of 2010, the "penetration by households" index was 19.13%²⁷.

The breakdown of subscribers by types of bundled services in Bulgaria is presented on Figure 47.

²⁶ The "penetration based on population" index was calculated on the basis of NSI data on the number of population as at 01.02.2011, <http://www.nsi.bg/census2011/pagebg2.php?p2=36&sp2=37&SSPP2=38>

²⁷ Only residential subscribers of bundled services as at 31.12.2010 were taken into account for calculation of the penetration based on population index. The NSI data on the number of households as at 01.02.2011 were used.



Source: Data submitted to CRC

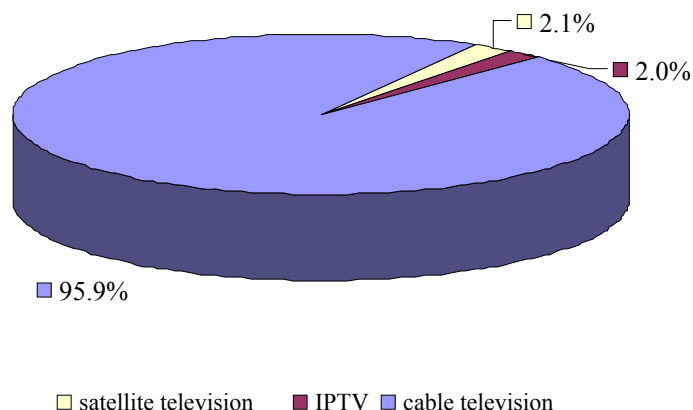
Fig. 47

The data presented on Figure 47 clearly shows that the users' interest was generally focused on five types of bundled services: four types of Double Play service ("Fixed voice service and mobile voice service", "Television and Internet access", "Mobile voice service and Internet access" and "Fixed voice service and Internet access") and the Triple Play service comprising fixed voice service, Internet access and television. Compared with 2009, when the number of subscribers of bundled television and Internet access was the highest, in 2010 the most preferred was the Double Play service comprising fixed voice service and mobile voice service. This change is most likely due to mobile operators taking advantage of the option to use their networks to provide both services in a bundle.

Despite the outstripping increase in the number of subscribers of the "fixed voice service and mobile voice service", the use of the Double Play service "Television and Internet access" remained widely spread in 2010. Meanwhile, the most preferred Triple Play services include a service related to television provision. The interest of users in bundled services, comprising the Double and Triple Play service with television included, has grown in the past few years, since these services bring additional value, which is expressed in the improvement of quality, price discounts, the option to choose between the different bundles according to the individual needs.

Figure 48 presents the breakdown of bundled services subscribers, according to the type of television service they receive.

Breakdown of bundled services subscribers by the type of television service they receive, as of 31.12.2010



Source: Data submitted to CRC

Fig. 48

As it is clear from the chart above, almost 96% of bundled services subscribers (with television service included) use cable television. Bundled services with satellite television and IPTV included are yet to enter the market and they cover a little over 4% of subscribers, as the number of undertakings providing these services was 17 out of a total of 74 undertakings offering bundled services with television included.

In 2010, another three types of bundled services attracted subscribers; however, the number of their subscribers is still relatively small, when compared to the total number of subscribers. These are the Triple Play service, comprising fixed voice service, mobile voice service and television, and the two types of Double Play service with mobile voice service and television included, as well as the combination of a voice service via numbers with a national access code from the "99x" type and an Internet access.

In 2010, as in 2009, there were still no subscribers of bundled services combining four types of electronic communication services. In 2011, consumption of quadruple play services is expected to begin, since undertakings concentrate their investments in construction and maintenance of an integrated network for the provision of different electronic communication services.

This is one of the reasons for the growth in the number of undertakings offering bundled services. At the end of 2009, it was 62, while at the end of 2010 undertakings were 81, which is an increase of 30.6%. 7 of them provided both Double and Triple play service. Undertakings providing Double Play service "Television and Internet access" were the most – 72.

6. Provision of universal service

6.1. Assignment of the universal service

As a result of the announced²⁸ intentions of CRC to launch a procedure for the selection of an undertaking/s to be assigned with the provision of the universal service or a part thereof on the entire or a part of the territory of the country, letters were received from BTC, "MOBILTEL" EAD, "COSMO BULGARIA MOBILE" EAD, "TRANS TELECOM" AD and "TELEDATA" AD. Considering the statements of the undertakings which have declared their

²⁸ Decision No. 1086/03.09.2009.

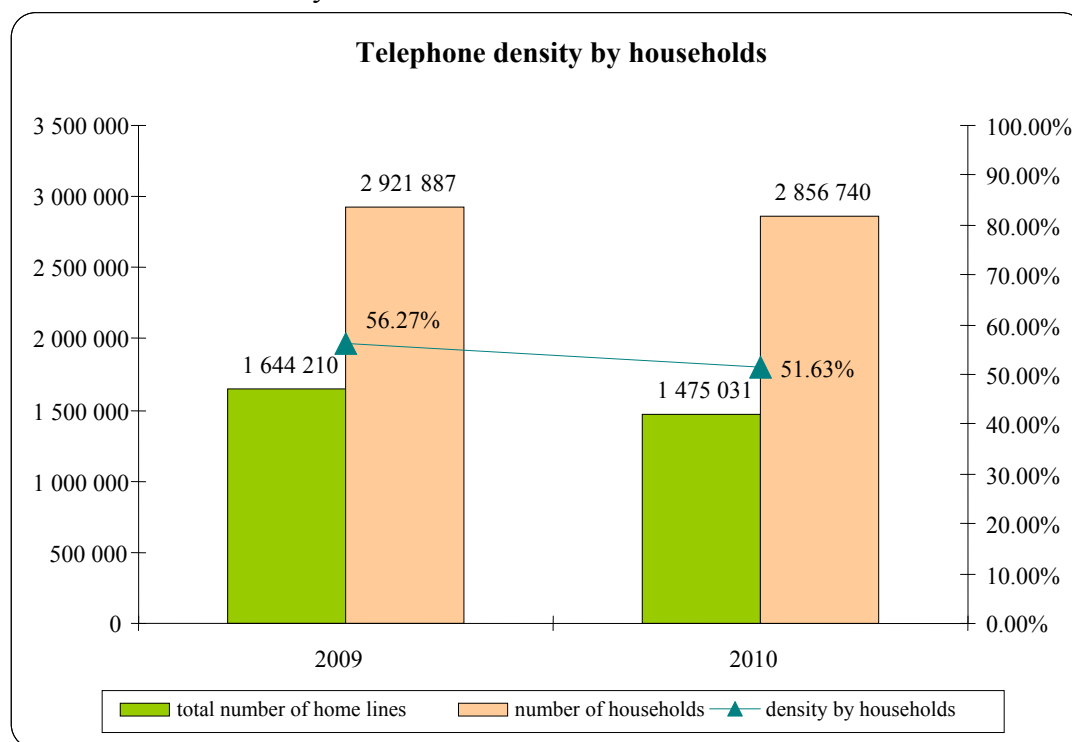
intention to provide the universal service, at the beginning of 2010 CRC initiated²⁹ before MTITC to make amendments to Ordinance No. 6/13.03.2008 concerning the requirements and parameters of the universal service quality, the special measures for people with disabilities, and the procedures for selection of undertakings providing public electronic communication networks and/or services, as well as for the assignment of the obligation for provision of the universal service, prom. SG, issue 32/25.03.2008, amended SG, issue 26 of 29 March 2011 (Ordinance No. 6), in order to ensure the participation in the procedure of all undertakings willing to do so. The Commission launched public consultations based on a consultative document which also included the quality parameter values determined by the regulator, immediately after the promulgation of the amendments to Ordinance No. 6 (SG, issue 26 of 29 March 2011).

In 2010, on the grounds of §7 of the Transitional and final provisions (TFP) of LEC, the undertaking obliged to provide the universal service was BTC. The obligations imposed to the undertaking referred to provision, of a predetermined quality and at affordable prices, on the entire territory of the country, the services within the scope³⁰ of the universal service.

6.2. Provision of the universal service on the entire territory of the country

In performance of its obligation to provide the universal service on the entire territory of the country, as of 31.12.2010, BTC provided 80% coverage by number³¹ of settlements. The above coverage excludes settlement formations (resorts, etc.), which are not included in the Unified Classification of Administrative-Territorial and Territorial Units.

In 2010, telephone density by households³² was 51.63%, registering a decline of 4.64%, compared to the year before, which is due to the decreasing number of residential subscribers who in 2010 were by 10.29% less than 2009.



Source: Data submitted to CRC

Fig. 49

²⁹ Letters with Ref. No. No. No. 03-07-42/23.03.2010, 03-07-42/13.04.2010 and 03-07-42/17.09.2010.

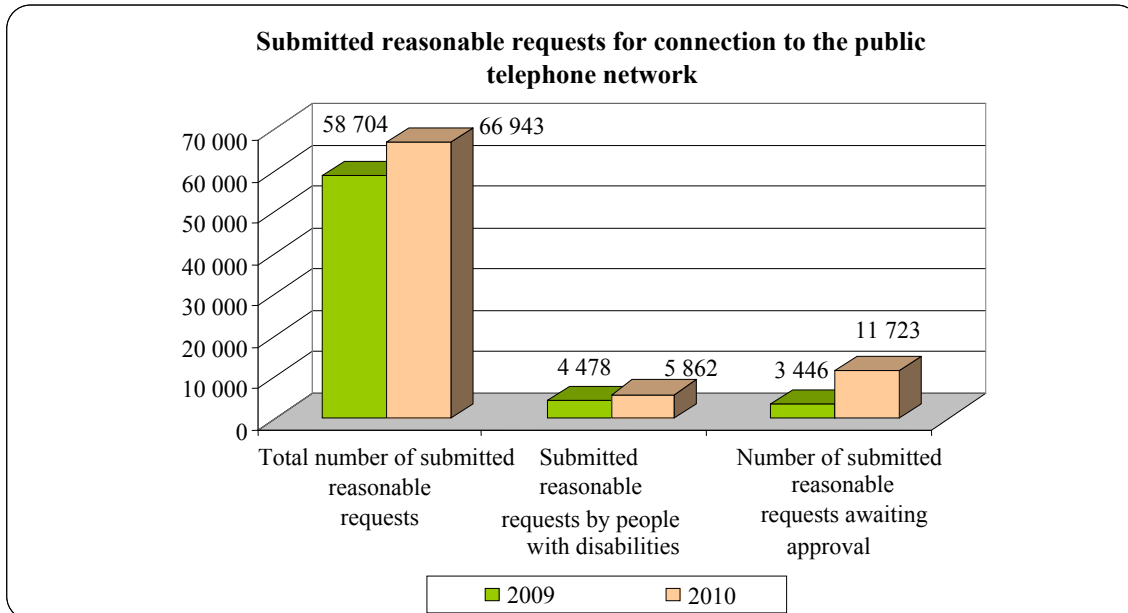
³⁰ The scope of the universal service is defined in Art. 182, Para 2 of LEC.

³¹ According to NSI data, the number of settlements in Bulgaria was 5302 as at 18.03.2011.

³² The "density by households" index is measured by dividing the total number of home lines to the number of households in the country. For calculation of the 2010 index were used NSI data of the population census carried out in February 2011.

6.3. Connection at a fixed location to the public telephone network and access to public telephone services

As it is clear from the chart below, as of 31.12.2010, the quantity of submitted reasonable requests³³ for connection to the public fixed telephone network of BTC increased considerably (by 8,239) since 2009 and totalled 66,943³⁴. In 2010, a growth of 30.91% was observed in the number of requests submitted by people with disabilities.



Source: Data submitted to CRC

Fig. 50

In 2010, 65.54% of submitted reasonable requests were approved, while 17.51% were awaiting approval. The number of the submitted requests for connection, which were given up due to the technical time necessary for creating a connection, came in at 11,266, while rejections for other reasons amounted to 79. As the only provider of the universal service, BTC provides access to public telephone services to 1,475,031 users.

In 2010, BTC offered dial-up Internet access to 2,771 subscribers, with the traffic of calls to the numbers for access 134xx reaching 0.13% of the total number of calls to national numbers.

By the provision of public telephone services, BTC performs its obligation to ensure free-of-charge calls to emergency numbers. Since they are used by end users in case of need only, their volume, measured in minutes, was insignificant - 0.23% of the total volume of calls to national numbers.

6.4. Public pay telephones of specified quality that allow making free calls to emergency numbers

The obligations of BTC for the provision of public pay telephones, stipulated in Ordinance No. 6, envisages that a criterion for a sufficient number of public pay telephones is reached.

Table 9 presents data about the performance of the obligation to provide a sufficient

³³ BTC treats all requests submitted by residential subscribers as requests that refer to the permanent address of the end user located within the construction borders of the settlement.

³⁴ For year-on-year comparison purposes, the number of the submitted requests includes the 11,345 requests withdrawn in 2010.

number³⁵ of public payphones in 2010.

Table 9.

| | number of municipalities | number of public payphones installed by "BTC" AD | sufficient number of public payphones | performance of the criteria for a sufficient number of public payphones |
|----------------------------|--------------------------|--|---------------------------------------|---|
| below 500 residents | 1 480 | 874 | not applicable | + 874 |
| from 500 to 1500 residents | 1 164 | 1 307 | 1 495 | -188 |
| over 1500 residents | 529 | 9 214 | 3 871 | + 5 343 |
| Total: | | 11 395 | 5 366 | + 6 029 |

Source: Data submitted to CRC

As a whole, the number of public pay telephones owned by BTC registered a drop of nearly 3.09% in the reviewed period, when compared to the preceding year (from 6,349 in 2009 to 6,029 in 2010). The criterion for a sufficient number of public pay telephones in municipalities with 500 to 1500 residents was not met, while in the remaining categories of municipalities, the installed public pay telephones were considerably over the minimum required number, envisaged in Regulation No. 6.

Public pay telephones, property of BTC, whose qualitative characteristics include facilities for users with impaired hearing and for users with no or impaired eyesight, reached 66.91% of the total number of public pay telephones in the country, as of 31.12.2010. Part of them contain textual or other type of connection for people with impaired hearing or speech and are accessible for users in wheelchairs by being installed in suitable locations.

At the end of 2010, BTC reported 76.84% functional public pay telephones, which is by 12.62% less than the year before.

Free calls to the national emergency numbers and to the single European emergency number "112" can be made from all public pay telephones owned by BTC.

6.5. Telephone directory, telephone enquiry services

With Decision No. 1347/12.11.2009, following the proposal of BTC extended in October 2009 concerning coordination of the telephone directory in an electronic form, CRC approved the printed and electronic version of the telephone directory. Considering the time necessary to meet the requirement for obtaining the express consent of each subscriber of public telephone services, regardless of the service provider (BTC or other undertaking), in 2010 the undertaking provided the telephone directory in an electronic form.

In compliance with its obligation to offer the numbers from the comprehensive telephone directory, BTC provided end users with a 24-hour telephone enquire service in the past year.

6.6. Affordability of the universal service prices

In performance of its obligations for affordability³⁶ of the universal service price, in

³⁵ According to Art. 5, Para 2 of Ordinance No. 6, a sufficient number of public payphones is considered to be present when there is at least 1 public payphone available per 500 residents in municipalities with more than 500 residents and at least 1 public payphone per 1500 residents in municipalities with more than 1500 residents.

2010 BTC determined as affordable the prices for:

- connection at a fixed location to the public telephone network. The connection price was BGN 24, VAT incl., and referred to connection based on a reasonable request submitted by an end user; the same applied to the price for connection at a fixed location of BGN 12, VAT incl., under the conditions of the " Handicap160" and "Handicap 300" plans;
- maintenance of access to public telephone services (monthly subscription/standard plan)³⁷;
- price packages included in the scope of the universal service.

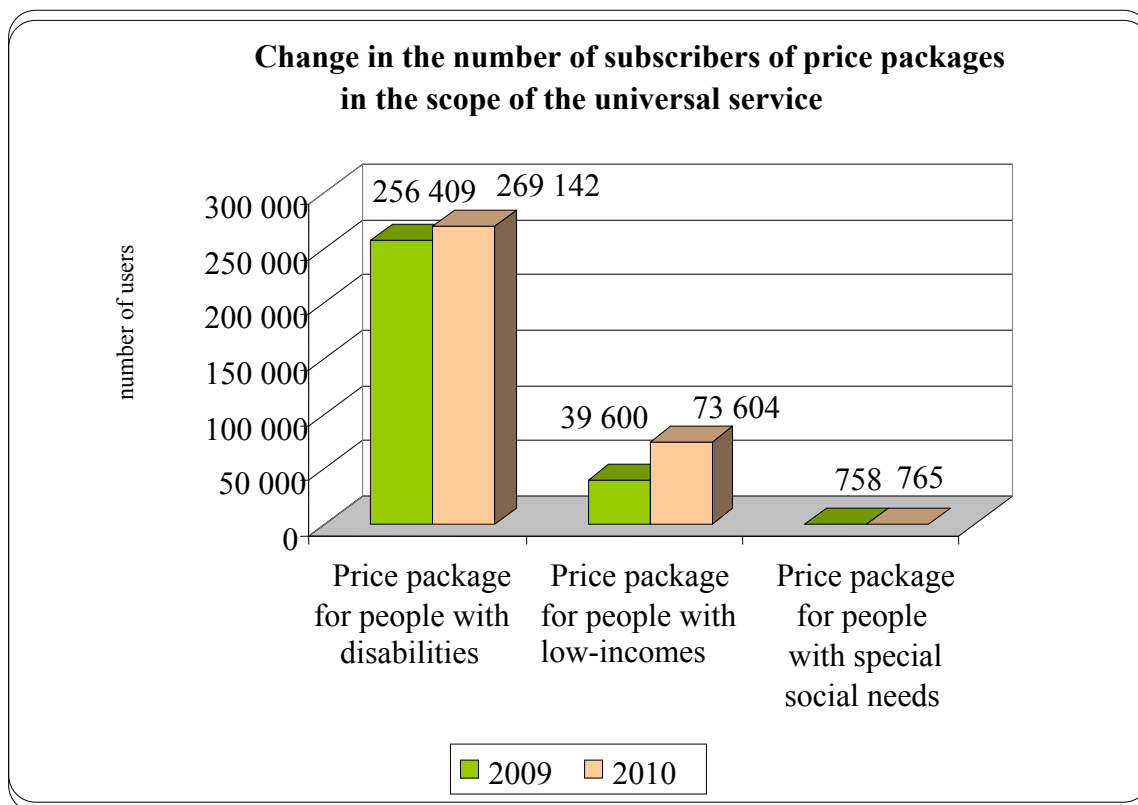
In 2010, BTC continued to offer price packages intended for users: with low incomes ("Limited plan", as named by BTC); people with disabilities whose work capacity or capacity for social adaptation has been impaired by over 90% ("Handicap 160" or "Handicap 300" plan, as named by BTC); people with disabilities whose work capacity or capacity for social adaptation has been impaired by over 50% ("Handicap 300" plan, as named by BTC); people admitted to social or health institutions ("Social and health institutions" plan, as named by BTC), offered in 2009 as well.

In 2010, a lower monthly subscription price initiated by BTC was applied for the "Social and health institutions" plan, of BGN 4.20, VAT incl., instead of the price of BGN 7.80, VAT incl., applied in 2009. At the same time, the included local calls with a total volume of 1000 minutes or 500 impulses per month remained the same. Except for this price packages, the conditions and prices at which the other price packages were offered, intended for low-income or people with disabilities whose work capacity or capacity for social adaptation has been impaired by over 90%, remained unchanged in 2010.

The chart below displays the changed number of subscribers of price packages in the scope of the universal service in 2010 versus 2009. The chart clearly shows that the quantity of users for each price package increased in 2010, as the greatest increase was observed in the price package for low-income people with a growth of approximately 86%, as compared to the year before:

³⁶ Stipulated in the Methodology for determining prices and price packages for the universal service, endorsed with Ordinance No. 254 of 23.10.2008 of the Council of Ministers, prom. State Gazette. issue 94 of 31.10.2008

³⁷ With Decision No. 992/13.08.2009, CRC approved the proposal extended by BTC for a new price plan for home subscribers of the fixed voice telephone service, which excludes consumption (certain number of minutes for calls or data transfer).



Source: Data submitted to CRC

Fig. 51

6.7. Quality of the universal service provision

The amendment of service quality parameters of the universal service provision in 2010 versus 2009, is presented in Table 10.

Table 10.

**Quality parameters of the universal service
provision**

| Parameters | Measure unit | 2009 | 2010 |
|--|-----------------|----------------------|----------------------|
| <i>I. Of telephone services provided at a fixed location</i> | | | |
| 1. Supply time for initial connection | days | 20 | 8 |
| 2. Fault rate per subscriber line | | | |
| 2.1. for digital subscriber lines | % | 0.98 | 1.405 |
| 2.2. for analogue subscriber lines | % | 3.20 | 3.58 |
| 3. Fault repair time – average value | hours | 3.75 | 1.71 |
| 4. Unsuccessful calls rate | % | 0.10 | 0.10 |
| 5. Call set up time | seconds | 0.5 | 0.48 |
| 6. Call set up time (response) for calls to operator service – average response time | seconds | 20 | 13 |
| 7. Call set up time (response) for calls to directory enquiry service | seconds | 20 | 13 |
| 8. Percentage of bills correctness complaints | % | 47 | 26 |
| 9. The voice quality assessment factor (R factor) | | | |
| 9.1. for wired access technology | | 75 | 75 |
| 9.2. for wireless access technology | | 70 | 70 |
| 10. One-way voice delay | milliseconds | not more than 150 | not more than 150 |
| <i>II. Of public pay telephone</i> | | | |
| 1. Fault repair time – average value | hours | 09:26:00 | 09:52:37 |
| 2. Unsuccessful calls rate | % | 0 | 0 |
| 3. Call set up time | seconds | 0,5 | <0,5 |
| 4. Call set up time (response) for calls to operator service – average response time | seconds | 39 | 39 |
| 5. Call set up time (response) for calls to directory enquiry service | seconds | 8.5 | 8.5 |
| 6. Percentage of functional public telephone devices | % | 89.46 | 76.84 |

Source: Data submitted to CRC

Data shows that BTC reported a higher quality of the universal service under the following parameters:

- the supply time for initial connection at a fixed location was reduced by 60%;
- the time for fault repair in telephone services at a fixed location was downsized by over 54%;
- the call set up time was cut by 4%;
- the call set up time (response) for calls to an operator was reduced by 35%;
- the call set up time (response) for calls to directory enquiry services was reduced by 35%;
- the percentage of bills correctness complaints was down by 21%.

6.8. Complaints and complaint adjudication

According to the General Conditions governing relations between BTC and the end users, the undertaking gives options to the users to individually track and control their costs through:

- the provision of detailed bills free of charge³⁸;
- selective limitation of outgoing calls free of charge;
- deferred payment when connecting to public telephone networks.

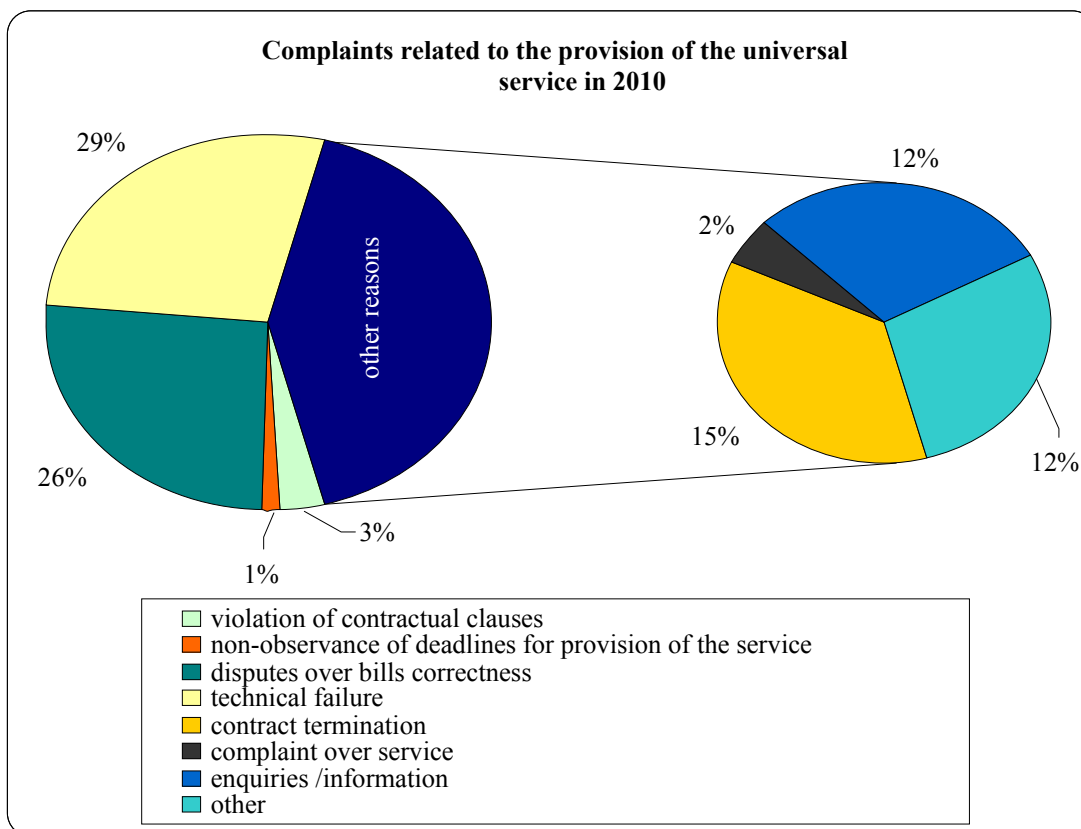
According to BTC data, as of 31.12.2010 the number of subscribers of lines which do not have the "charge by time" option, totalled 25,050, which represents 1.7% of the total number of residential subscribers. These lines are linked to analogue telephone exchanges which do not have the "charge by time" option and because of this technical deficiency, subscribers are deprived of their right to receive a itemized bill³⁹ of the number, type and duration of calls made. In this way, they are deprived of the opportunity to track and control their costs.

In 2010, the number of complaints filed with the undertaking regarding the provision of universal service, was 23,192, which is 2.5 times more than 2009, and stood at 15.7 complaints per 1,000 residential subscribers.

Most often, complaints disputed technical failures, bills correctness, invoice delivery, violation of contractual provisions. The reasons are displayed on the chart below:

³⁸ The content of the detailed bill is defined in Art. 260, Para 3 of LEC.

³⁹ The content of the itemized bill is defined in Art. 260, Para 4 of LEC.



Source: Data submitted to CRC

Fig. 52

Percentage of complaints regarding technical failures was 28%, compared to the total number of complaints. Percentage of bills correctness complaints compared to the total number of complaints was 26% and was down 21% compared to the same parameter in 2009.

BTC responded to 67% of the incoming complaints within the regulatory deadline of 30 days, while the percentage of respected complaints was 38%.

6.9. Compensation of net costs accrued due to the universal service provision

6.9.1. Application for compensation of the unfair burden incurred by the provision of the universal service

In 2010, on the grounds of the amended Art. 200, Para 2 of LEC (SG, issue 27/2010, in force as of 09.04.2010), BTC filed with the Commission a request for a compensation of the unfair burden incurred by the provision of the universal service in 2009, amounting to BGN 32,688,043.69, based on calculations made by the undertaking). After a thorough and detailed analysis of the request and proofs attached thereto, the Commission found that there was some information missing, and with Decision No. 836/05.08.2010, CRC required the repeated provision of information in a respective volume and details. The undertaking is expected to provide a more precise evaluation of the amount of intangible benefits.

6.9.2. Universal Service Compensation Fund

According to the provisions of Art. 203, Para 2 of LEC, the Managing Board of the Fund prepares annually up to 31 May, a report for the preceding year, which includes:

1. the amount of net costs incurred by the provision of universal service;
2. evaluation of the immaterial advantages of undertakings providing universal service;
3. the amount of contributions of the undertakings to the Fund;

4. the amount of funds spent.

The report under Para 2 is published on the CRC's website.

The provision of Art. 207, Para 2 of LEC stipulates that CRC should prepare a statement regarding:

1. the availability of unfair burden from the provision of a universal service, including the impact of the immaterial advantages, for the relevant undertaking under Art. 206;
2. the amount of the compensation requested by the respective applicant.

Pursuant to the provision of Art. 208, Para 1 of LEC, the Managing Board of the Fund shall announce a decision on the total amount of compensation due to all applicants for the previous year, as well as on the actual amount payable to each of them based on the CRC's statement.

Since up to 31.12.2010 no statement of CRC has been received, the Managing Board of the Fund for compensation of the universal service has not exercised its powers under Art. 208, Para 1 of LEC.

The Fund is expected to take decision on the total amount of the compensation in 2011.

6.10. Prospects for development of the universal service

At the beginning of March 2010, the European Commission, in accordance with Art. 15 of the Universal Service Directive (Directive 2002/22/EC), opened a public consultation on the need to update the scope of the universal service. Consultations focused on issues related to change to the universal service concept, offering more flexibility to the EU member states in defining the scope of the universal service, the inclusion in its scope of the broadband Internet access and the future financing of the universal service.