

7. SATELLITE SYSTEMS

In 2004 the issuance of licenses for new telecommunications networks under individual license No 112 on carrying out telecommunications through a private telecommunication network from the fixed satellite radio service continued. TRANSAT PLC was issued another two licenses for the activities under individual license No 112, and CITS PLC and TRANS TELECOM Ltd are newly licensed. Nine of the operators licensed for these telecommunications activities have implemented trade activities at the end of the year.

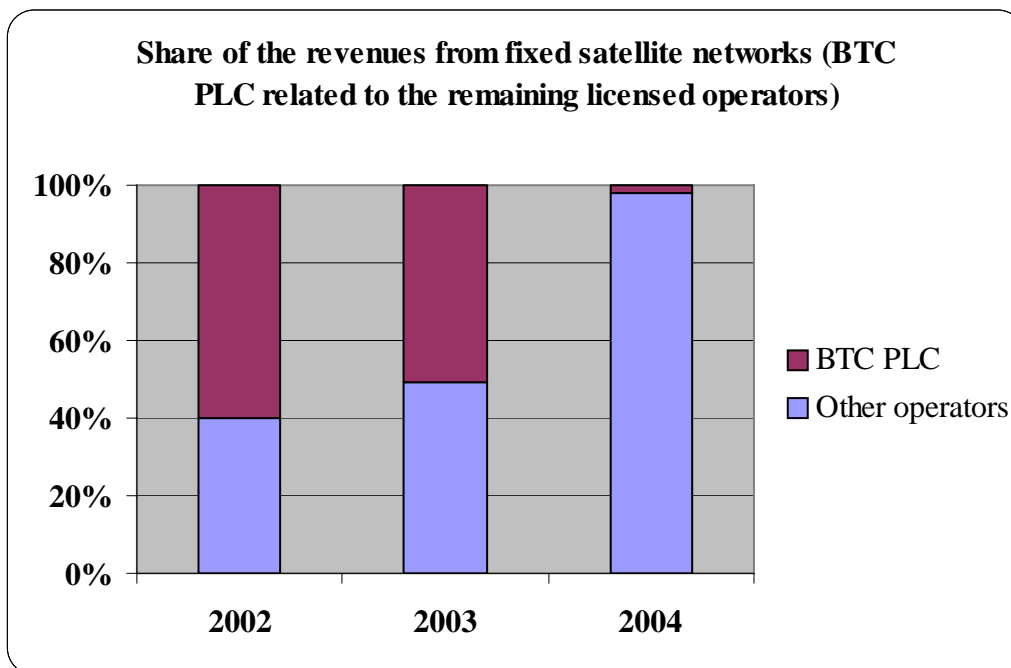
The operator NETERA Ltd continued to implement activities and provide telecommunications services through its licensed network – radio- and television programs broadcasting.

BULSATCOM PLC started to offer a new service – reception of Bulgarian television programs at home through the DVB digital technology from “Hellas Sat 2” satellite through a small satellite antenna (60 cm). This way users in areas away from the centers with developed communications (sparsely populated areas, holiday homes, villas, motels, petrol stations etc.), may use the new service.

TELEPORT BULGARIA PLC has two licenses for construction, maintenance and operation of public VSAT networks, through which provides data transmission services. The operator renders satellite services through built-up VSAT networks – “Teleport II” and “Teleport III”, consisting of five fixed satellite stations in total, connected to NSS 703 satellite of the satellite organization “New Skies Satellites” and satellite “Eutelsat II-01” of the “Eutelsat” satellite organization.

ITV Partner is the trademark, with which in March INTERACTIVE TECHNOLOGIES PLC commenced its activities on the issued in 2003 individual license for carrying out of telecommunications through a private telecommunications network from the fixed satellite radio service. In 2004 the operator strengthened its position as a leader in this telecommunications market segment. The project is implemented through a new, specially constructed for the purpose satellite station “Teleport SOFIT”, equipped for transmission and broadcasting of digital radio- and television signals. The main service, offered by the company and directed to the end user, is the so called DHT (“direct-to-home”). Through a small 60-80 cm satellite antenna and a digital receiver STB (set top box), each client may receive Bulgarian and foreign television channels, and a part of the foreign channels may be subtitled or dubbed in Bulgarian. The interactive applications, which are accessible solely for the subscribers of ITV Partner, provide complementary possibilities for games, weather forecast, information services etc. The programs and data broadcasting is carried out through the Outlast – W2 satellite, which covers all Europe, the signal intensity is reaching 50 dB. The location of the satellite enables with one antenna and a double converter also to receive the signal coming from the neighboring satellite HotBird, where over 250 unencrypted television channels and over 300 unencrypted radio stations are located.

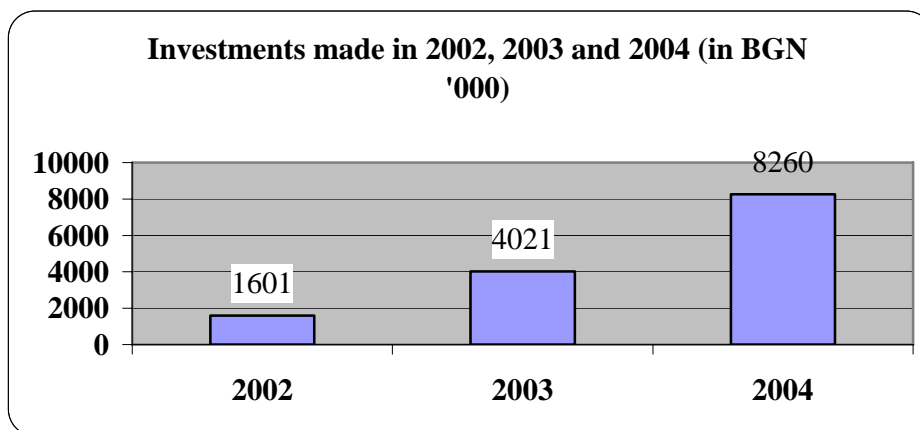
In 2004 TRANSAT PLC obtained individual license No 112. For the last two years the Company has built up and commissioned modern teleport in Sofia and VSAT networks of companies in the sphere of banking, trade with oil products, state administration structures etc. At this time TRANSAT PLC provides connection of over 650 sites located on the territories of 15 countries in Europe, North Africa and the Middle East. TRANSAT PLC also commissioned a VSAT network of TRANS TELECOM Ltd, a company possessing a license for provision of a fixed voice telephone service. The use of VSAT technology will provide TRANS TELECOM OOD with an opportunity to render competitive voice services of quality.



Source: Data submitted to CRC

Fig. 67

The volume of the fixed satellite networks market segment in 2004 amounted to BGN 11,8 million and grew up by over two-fold for an year. The relative share of the BTC PLC revenues is solely 2% of the total volume: during the year a progressive deprivation of a market share from the former monopolist within this market segment was observed, the revenues of the remaining operators amounting to more than 85%.



Source: Data submitted to CRC

Fig. 68

The investments made in fixed satellite systems in 2004 amount to BGN 8,260 million and retained the growth trend: the operators declared two times bigger invested fund. (Fig. 68)

VSAT networks allow construction of communication networks for data transmission, audio- and video information, including places in the most difficult to access regions. The technology provides rich possibilities for the implementation of dialogue applications for training, control, file transfers, video conferences and other multimedia applications.

The advantages of VSAT networks are numerous, some of which are as follows:

- The VSAT network does not use cable routes, which makes it independent in cases of eventual damages, thefts of cables, suspension during construction activities;

- The degree of development of the communication infrastructure is not a factor, which may limit the deployment of the VSAT network;
- Lower prices compared to the traditional communication means;
- The VSAT network provides each client's sub-network with a communication channel, fully conformed to the client's needs;
- The VSAT network excludes the maintenance of the relations and coordination with a lot of and various communication services providers in different towns and regions;
- VSAT networks also provide a high level of security and reliability: they guarantee working capacity of the system of not less than 99,7%, significantly outmatching the cable networks with regard to this indicator; this, combined with the latest achievements in the sphere of data protection, provides for the needed degrees of security and reliability of communications.

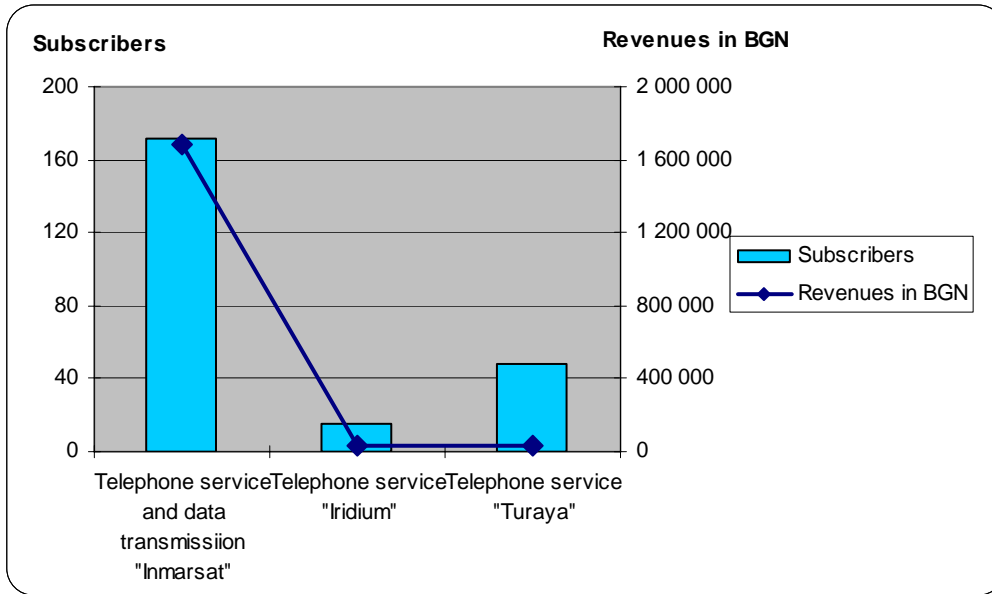
It may be anticipated that the volume of this market segment will continue to grow up within the next few years as well in view of the ratification of the satellite systems as an alternative technology of the existing terrestrial cable and radio-networks and providing for an opportunity for rendering services of high quality, granted speed and data transmission security.

7.1. ACCESS TO SATELLITE SYSTEMS

In 2004 the CRC issued one registration certificate under General License No 216 on the provision of the telecommunications service "access to satellite systems". The certificate was issued to SCORTEL OOD – a company with established positions in the sphere of communications in our country.

SCORTEL Ltd offers a great range of products and services related to the communications sector. The products include mobile, personal and maritime satellite equipment, radio- and navigation devices, equipment for satellite Internet and a mobile satellite television. The Company offers to the Bulgarian users' access to the services of "Inmarsat", "Turaya" and "Iridium". The telecommunications services of the Company, related to its activities under General License No 216, include voice telephony, fax transmission, Internet access, e-mail, transfer of files, transmission of video in regimes store-and-forward or videostreaming, transmission of messages and GPS data for navigation and management of mobile sites; receipt of a message from SCADA systems or from security systems etc. The satellite systems access has a number of advantages, mainly related to the opportunity of using the services from various geographic points of equal quality and profile of consumption, providing access into regions, where no fixed, cable or cellular networks are built up. In essence, these services are an alternative of the classical fixed and mobile telephone and fax services, data transmission and Internet access, but due to the high expenditures of the satellite transmission and the absence of developed market in our country, the services are not popular and for the time being they satisfy the specific needs of solely certain business clients.

According to data received in the CRC, about 94% of the revenues of SCORTEL Ltd are from provision of the communication services of "Inmarsat", and the remaining – from access to the services of "Iridium" and "Turaya". The number of subscribers as of 31.12.2004 is over 200. The distribution by revenues and subscribers in conformity with the services of SCORTEL Ltd is presented in the figure herein below:



Source: CRC

Fig. 69

For the past year the company realized investments around BGN 100 thousand. New investments are planned for 2005, predominantly from own funds. It is expected in the future the role of the satellite services to increase significantly in a global scale, taking into consideration the tendency of convergence of networks and services and the advantages of the satellite broadcasting from the point of view of international roaming and high speed data transmission, regardless of the territorial location of the users. The licensing of new operators offering access to satellite systems may be expected.