

ΕΠΙΚΟΙΝΩΝΙΕΣ...

# ΕΝ ΤΑΧΕΙ

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COMMUNICATIONS IN HIGH SPEED



**EETT in the Chairmanship of BEREC  
for the Year 2013**

**Spectrum Auction for Mobile Communication Services**

**Article by Mr. Makis Vouridis, Greek Minister of  
Infrastructure, Transport and Networks**



**EETT**

HELLENIC TELECOMMUNICATIONS & POST COMMISSION

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# Facing the Challenges of 2012

## and enhancing EETT's role and contribution

*By the Vice President of EETT, Mr. Michalis Sakkas*



**EETT will face important challenges in 2012. Its role and contribution in the enforcement of legislative measures, benefiting both consumers and the market, will be enhanced.**

At the end of 2011, EETT had two major achievements. The first one was accomplished at the national level and concerns the successful completion of the spectrum auction for mobile communication services in the 900MHz and 1800MHz bands. EETT raised a total sum of 380,5 million Euros to the benefit of the Greek State, providing significant financial relief in this difficult conjuncture for our country. The second one was accomplished at the European level. Through its President, who is currently the Vice-Chair of the Body of European Regulators for Electronic Communications (BEREC), EETT assumed BEREC Presidency for 2013. This is a very important achievement under the present circumstances in Europe.

As a result of the above actions and a series of new laws that are soon to be voted, EETT will face important challenges in 2012. Its role and contribution in the enforcement of legislative measures, benefiting both consumers and the market, will be enhanced.

More specifically, after the adoption of the new legal framework, our Independent Authority will become the central pillar in a one stop shop procedure for licensing mobile telephony antennas, by collecting the supporting documents from all the relevant government services (regional authorities, urban planning offices, forest inspection authorities, the archeological service etc.), reducing bureaucratic delays, and contributing to the resolution of the long-standing problem of antenna licensing.

Also, the impending liberalization of the postal market requires that EETT conducts a series of Regulations and interventions within 2012 to ensure that after January 1, 2013, postal market companies will be ready to operate in a fully liberalized environment, in compliance with European Directives.

The developments mentioned above, as well as a series of other actions expected within the current year, such as the technological and economic utilization of the digital dividend, the establishment and regulation of fiber optic networks, the establishment of mobile communication networks and services using LTE technology etc., increase EETT's obligations amid the adverse conditions in our country, especially concerning labor relations and the successive series of severe fiscal measures.

However, we consider that these developments will not affect EETT, due to the commitment of our specialized and industrious staff which despite the current financial adversities has proved to have a high sense of responsibility, meeting the high standards of efficiency set by our Authority. •

# EETT in the Chairmanship of BEREC for the Year 2013

*In December 2011, EETT was voted in the Chairmanship of the Body of European Regulators for Electronic Communications (BEREC). This achievement is a great honor for the Authority and a significant recognition of its work at international level.*



In the elections, held on 8-9 December 2011, EETT's President, Dr. Leonidas Kanellos, was unanimously elected BEREC Incoming Chair 2013 by the heads of the 27 Regulatory Authorities of the European Union (EU) member states, as well as by the representatives of the European Commission.

According to the Body's Regulation, EETT's President will assume the role of BEREC Incoming Chair 2013 and Outgoing Chair 2014. Furthermore, he will assume the role of Chair of the Independent Regulators Group (IRG) for 2013, whose participants include the Regulatory Authorities of the 27 EU member states, the four member states of the European Free Trade Association (Switzerland, Iceland, Lichtenstein and Norway), as well as the four candidate countries for joining the EU (Croatia, Montenegro, FYROM and Turkey). During 2011, which was a landmark

year, in view of the enactment of the new European regulatory framework, the BEREC Office, a European institution based in Riga (Latvia), became operationally autonomous and capable of fully supporting the work of the Body. Under the dynamic chairmanship of Mr. Chris Fonteijn, BEREC conducted critical interventions and recommendations to the European Commission, the Council of Ministers, and the European Parliament on major issues like International Roaming and Net Neutrality. These initiatives highlight the important advisory role of BEREC in the areas of its responsibility and the high prestige of its work.

For 2012, the Chairmanship of BEREC was assumed by Dr. Georg Serentschy, President of the Austrian Regulator, in accordance with the results of the elections held in December 2010. Apart from Dr. Kanellos, the positions of the Vice-Chairs of BEREC and IRG for 2012

are assumed by Mr. Ed Richards (United Kingdom), Mr. Göran Marby (Sweden) and Mr. Catalin Marinescu (Romania). The position of the Vice-Chair for IRG is also taken over by Mr. Kurt Buhler (Lichtenstein).

## **BEREC's Work Program**

The work program of BEREC for 2012 focuses on strengthening competition, improving and harmonizing regulatory practices, and protecting consumer interests. The submission of high level opinions to the European institutions on issues concerning the Electronic Communications sector is a permanent priority for BEREC. Additionally, the Body plays a particularly important role in analyzing and submitting opinions, through its expert working groups, in cases where the European Commission expresses serious doubts on the market analyses and the ensuing regulatory measures, which are notified by the National Regulators.

The challenges for BEREC are numerous and the stakeholders' expectations are high. The Body's interest focuses, among others, on issues such as:

- The International Roaming and the adoption of a new Regulation by the European Parliament which introduces important reforms in the mobile communications market.
- Ensuring Net Neutrality.
- The adoption of Common Positions addressing the regulation of Next Generation Access Networks (NGAs).
- Strengthening the internal market with the adoption, among other things, of common practices for the prevention of discrimination, for consumer protection etc.

Special reference must also be made to the important goals set by the Digital Agenda, which substantially complement the recently revised Regulatory Framework, and constitute an important challenge both for the Authorities as well as for market players and consumers. BEREC recognizes their importance and supports the efforts of the European Commission, the governments and the Regulatory Authorities for their achievement. •



# Spectrum Auction for Mobile Communication Services in the 900MHz and 1800MHz Bands

*On November 11, 2011, EETT successfully completed the spectrum allocation for granting rights of use for radiofrequencies in the 900MHz and 1800MHz spectrum bands. The entire available spectrum in these bands was granted to Greece's three mobile operators, COSMOTE, VODAFONE-PANAFON and WIND. EETT, on behalf of the Greek government, succeeded in raising 380.5 million Euros.*

In planning this process, EETT took into account both the bandwidth and the expiration time of the rights of frequency use that were granted to providers. The assignment of the 900MHz band is considered as exceptionally important, because this band is configured for extensive broadcasting, it covers longer distances than higher frequency bands, and it facilitates the expansion of innovative voice, data, and multimedia services to sparsely populated and rural areas. Taking all the above into account, EETT considered refarming the entire 900MHz band and decided to conduct an open call for tenders for the rights expiring in 2012, 2016, and 2017, including the spectrum block used until recently by the Hellenic Armed Forces. The licensing of the available spectrum

in the 1800MHz band was also included in the same plan.

The choice of an open call for tenders would ensure transparency, enabling all interested parties to claim under equal terms, the radiofrequency spectrum in the 900MHz and 1800MHz bands. It is also worth noting that the Greek procedure of spectrum refarming was the first in Europe that was implemented under the revised European Framework that concerned the auctioning of spectrum that was already in use. For this reason, EETT's proposal was extensively examined by the European Commission before it gave its agreement, since the Greek experience could set a European precedent.

In this framework, in 2011 EETT initialized and completed the procedure for granting new rights to the 900MHz

and 1800MHz bands through an auction. The rights that were submitted to the call for tenders were the following:

- a) Fourteen (14) blocks of 2x2.5MHz in the 880-915MHz and 925-960MHz bands, and
- b) Four (4) blocks of 2x5MHz in the 1710-1730 MHz and 1805-1825MHz bands.

## The call for tenders

The auction process was planned and implemented by EETT, using its own staff and resources, making extensive savings to the benefit of the Greek state, in contrast to auctions in other countries, where the remuneration for external consultants who implemented the procedure in total, amounted to several million Euros, often estimated as a percentage over the total proceeds of the auction.

The procedure that was followed includes two phases: in the first phase – after it was determined that only three participants would take part – the three companies received, at starting price, the total of the reserved rights of use for radiofrequencies in the spectrum area of 900MHz, for which they had applied, i.e., 2x7.5MHz per company. The total amount raised at that stage of the procedure amounted to 181.7 million Euros.

At the second phase, the remaining spectrum available in the 900MHz and 1800MHz region was assigned to the three mobile telephony companies after

## Chronicle of the Spectrum Allocation

### January 4

Launch of the Public Consultation (from January 4th to February 14<sup>th</sup>, 2011) aiming at:

- a) Investigating European practices,
- b) Taking corrective measures in case of distortions,
- c) Assessing the value of the spectrum rights of use
- b) Establishing the best procedure for granting frequency rights of use that expire in 2012.

### March 18

The company "WIK – Consult GmbH" was designated as the international technical consultant who would support a) the procedure of lifting the limitations in the two bands, b) the assessment of the value of the spectrum and the procedure for granting rights of use in the 900MHz band. This company had also supported, among others, the German Regulatory Authority (BNetzA) during a recent auction for granting spectrum in Germany.

### July 26

The Information Bulletin on the proposed procedure - which included a detailed description of the procedure, the determination of the spectrum areas for which rights would be granted, a forecast on the duration and range of the relevant rights, the proposed starting price, as well as other terms - was submitted to Public Consultation until September 9.



From left to right: **Mr. Michalis Tsamaz**, Chair and CEO of COSMOTE, **Dr. Leonidas Kanellos**, President of EETT, **Mr. Glafkos Persianis**, CEO of VODAFONE, and **Mr. Nassos Zarkalis**, Chair and CEO of WIND Hellas.



From left to right: **Mr. Georgios Papapavlou**, Member of EETT, **Mr. Ioannis Papaioannou**, Member of EETT, **Mr. Michalis Tsamaz**, Chair and CEO of COSMOTE, **Dr. Leonidas Kanellos**, President of EETT, **Mr. Glafkos Persianis**, CEO of VODAFONE, **Mr. Nassos Zarkalis**, Chair and CEO of WIND, **Mr. Michalis Sakkas**, Vice-President of EETT, and **Dr. Nikos Papaoulakis**, Member of EETT.

a four-round auction. Accordingly, the total amount raised at the second phase amounted to 198,835 million Euros. The total amount raised by EETT on behalf of the Greek government, reached a staggering 380.535 million Euros.

#### The social and economic benefits

The expedient utilization of networks brings important benefits for the entire Greek economy and society. Lifting the limitations in the 900MHz and 1800MHz bands, especially in the way conducted by EETT, is a fundamental prerequisite for the competitive growth of the Greek Electronic Communications market in accordance with the principles of transparency, impartiality, and proportionality. It promotes the development of new wireless technologies and services, as well as third generation (3G) mobile telephony networks that support innovative services with regard to communications, access and content. Moreover, by liberalizing the spectrum in the 900MHz and 1800MHz bands, the owners of the rights of frequency use will now be able to choose the technology that they wish by installing GSM/DCS, UMTS, LTE and WiMax systems. At the same time, the existing operators, who have already invested in networks, staff, and technologies, will continue the provision of 2G services.

Given that the use of the 900MHz band for UMTS networks can bring about reductions in the total cost of

#### August 30

The Plenary of EETT met with representatives from the Greek government to provide information on the methodology for estimating the proposed price, as well as the details of the tender procedure. The General Secretary of Communications, Professor S. Katsikas, the General Secretary of Privatizations, Mr. G. Christodoulakis, the Managing Director of the Hellenic Republic Asset Development Fund,

Mr. K. Mitropoulos, the Authorized Consultant, Mr. A. Taprantzis, as well as representatives from WIK GmbH, the international consultant of EETT, were present at the meeting.

#### September 12

End of the Public Consultation. EETT forwards the positions of the three companies, COSMOTE, VODAFONE-PANAFON, and WIND, to the Minister of Infrastructure, Transport and Networks,

who is legally competent to determine the final terms of the procedure.

#### September 20

Issue of the relevant Ministerial Decision that accepted EETT's recommendation in its entirety, opening the way for the tender procedure. The draft Notice received the approval of the Plenary of EETT and was later submitted to Public Consultation until September 27, 2011

up to 30%, compared to the operation of UMTS networks in the 2100MHz<sup>1</sup> band, mobile communications operators are expected to benefit significantly in terms of investment and operational costs. Services with higher transmission rates, such as internet navigation, mobile television, and downloading large files, can be greatly facilitated (third generation mobile telephony networks with the use of UMTS technology).

As a result, the range of choices, price competitiveness, and the quality of services that are offered to consumers will be strengthened, and the “digital gap” between the cities and the sparsely populated island and rural areas in the Greek countryside will be further bridged.

#### The Event of Licenses' Signature

On December 19, 2011, the mobile telephony licenses were signed in the EETT offices by the President of the Regulatory Authority, Dr. L. Kanellos, and the heads of COSMOTE, VODAFONE – PANAFON, and WIND, Mr. M. Tsamaz, Mr. Gl. Persianis, and Mr. N. Zarkalis respectively. With the signature of licenses, the procedure for granting radiofrequencies in the 900 MHz and 1800 MHz bands by EETT was officially completed.

1. Market study for UMTS900, A report to GSMA, Ovum Consulting, 2007

#### The EETT Spectrum Allocation

- It is the **first procedure of spectrum refarming**, which was implemented under the revised European Framework, and concerned spectrum which was already in use. For this reason, there may be a **pan-European precedent**.
- It is the **sixth**, since 2000, **frequency spectrum auction**, designed and implemented by EETT, raising for the Greek State the total amount of **1.1 billion Euros**.
- It provides an **investment horizon** for mobile telephony companies **up to 2027**.
- It ensures **fair competition** by establishing obligations for licensees (national roaming, the operation of Mobile Virtual Network Operators (MVNOs), network and equipment collocation).
- It enhances Greece's **fiscal revenue** in a challenging time.
- It is a case study of **efficient utilization of a scarce national resource**, through a **transparent procedure**.

#### The expedient utilization of networks brings important benefits for the entire Greek economy and society.

The successful completion of this procedure is part of the national Digital Strategy, which aims to equalize access to the internet economy for all Greek consumers and businesses, by combining both wired and wireless technologies and third generation mobile telephony networks. EETT guarantees the regulatory stability and the operation of fair competition for benefiting consumers and for attracting investments in new communication technologies. •

#### October 1

EETT approved the issue of the Notice of the Call for Tenders, taking into consideration the views of the European Commission.

#### October 21

The companies COSMOTE Mobile Communications, VODAFONE-PANAFON and WIND Hellas submitted an application for participating.

#### October 25

The Plenary of EETT approved the participation of the three companies in the spectrum allocation process.

#### November 2 & 3

Training of the participants in the system for electronically submitting tenders at the offices of EETT.

#### November 7

The date for the conduct of the multi-round ascending bid auction was announced.

#### November 14

Beginning and end of auction.

#### December 19

Signature of licenses.

# EETT's Participation in ICANN - Part 2

By Mr. Georgios Papapavlou, Member of EETT's Plenary



**EETT, in cooperation with the Ministry of Infrastructure, Transport and Networks, supported for the first time the need for GAC to check in advance all candidacies, mainly to prevent the uncontrollable use of geographic names and names that could offend national, social, or cultural sensitivities.**

The Domain Name System facilitates communication by providing easy to be memorized names to the impersonal numerical addresses of cyberspace. It functions with hierarchical order with Top Level Domains (e.g., .com, .gr) at the top and second- (e.g., eett.gr) or third-level (e.g., papapavlou.eett.gr) domain names at the bottom. Initially, six generic Top Level Domains (gTLDs) with three letters (.com, .org, .int, .edu, .mil, .gov), and numerous country code Top Level Domains (ccTLDs) with two letters, which represented countries registered in ISO (e.g., .gr, .fr, .de, .uk), were created. Given that no domain name can be in a Top Level Domain more than once, the .com domain name, which had been initially conceived for companies, was soon crammed. This led many companies to use .org for their own names or to exert pressure on ICANN for creating new gTLDs that would offer additional capacity on the Internet.

Indeed, ICANN expanded the number of gTLDs three times by adding .aero, .biz, .coop, .info, .museum, .name, .pro in 2000, .asia, .cat, .jobs, .mobi, .tel, .travel in 2004, and .xxx in 2011. Very few of these gTLDs became popular or acquired a large number of users. As a result, ICANN's announcement in 2008 that it would launch a fourth round of expansion, without numerical imitation, was met with surprise. According to ICANN's estimations, there would be at least 500 candidacies and they might even exceed 1500!

Until June 2010, when EETT participated for the first time in a conference of ICANN's Governmental Advisory Committee (GAC) held in Brussels, few members of GAC (the big countries) had concerns with the issue of expansion.

Those who dealt with it did so only after pressure by big companies, who were afraid of infringement on their intellectual property rights, and by police authorities, who were afraid of seeing a rise in cybercrime cases. EETT, in cooperation with the Ministry of Infrastructure, Transport and Networks, supported for the first time the need for GAC to check in advance all candidacies, mainly to prevent the uncontrollable use of geographic names and names that could offend national, social, or cultural sensitivities. After tough negotiations with ICANN, GAC was granted two periods to conduct the checks. In the first period, from May 1<sup>st</sup> until the end of June 2012, GAC will be able to warn candidates that some of the new potential gTLDs may cause problems to certain GAC countries. If the candidacies are withdrawn, then the greatest part of participation fees paid by the candidates will be returned. In the second period, from July 1<sup>st</sup> until the end of the year, GAC will be able to submit its detailed opinion on all the candidacies still causing problems. ICANN is obliged to reject candidacies that are unanimously opposed by GAC.

The period for submitting new gTLDs began on January 12, 2012 and will end on April 12, 2012. The participation fee has been set at 185,000 dollars, while the candidates will need support from specialized technical companies and attorney offices, which will significantly increase the participation cost. •

*Detailed information is available on the website of ICANN at <http://www.ICANN.org>.*



# We need to do our best in the shortest possible time

by Mr. Makis Vouridis, Greek Minister of Infrastructure, Transport and Networks

*The primary mission of the current government is to assist our country in this difficult conjuncture. This is directly linked to the implementation of the decisions taken in the European Summit of October 26, 2011, with a view to ensuring the disbursement of the installments of the loan agreement and the implementation of the PSI. Our primal concern is to secure the future of our country and to create the right conditions for business and economic development. The Postal Services and the Electronic Communications can play a critical role in this effort, and we are looking forward to supporting their growth through the actions of our Ministry and through the contribution of EETT, which is the competent Regulatory Authority. For this reason, we need to do our best in the shortest possible time.*

## **The liberalization of Postal Services and the Licensing of Mobile Telephony Antennas**

Since the start of our mandate, we have set a series of concrete priorities that we are implementing in the shortest possible time to provide relief to our depressed economy. Despite the very large number of critical and highly important items in our ministry's agenda, we have already submitted to the Parliament a draft law (which had been drawn up by the preceding administrations of our Ministry) on the "Regulation of the Operation of the Postal Market, Electronic Communications Issues and

Other Provisions", which concerns the liberalization of Postal Services and ensures, at the same time, the provision of the Universal Service.

This draft law also includes important provisions that bring about substantial improvements on the procedure for licensing antennas, on mobile telephony, and on other issues. It is well known that, until today, it took at least three years for anyone to construct an antenna based on the existing legislative framework. This was a very serious obstacle to investments in the telecommunications sector. This draft law establishes ESAS (Electronic Submission of Applications

System), with the contribution of EETT, which allows the electronic submission of the relevant applications and supporting documents required by law, while also obliging the government services to respond to requests within four months. If no answer has been given within four months, then a certificate stating that the file is complete will be granted, and the applicant will be able to move forward before all the relevant approvals and certificates are issued. If, in the meantime, a deficiency is identified, or if the applicant does not fulfill the legal requirements and the Ministries give a negative answer, then the certificate will be cancelled. On the other hand, if the relevant requirements are met, then the license will be issued. Thus, one of the first promises contained in the programmatic declarations of this transitional government is now fulfilled. This promise concerns accelerating the procedure for licensing mobile telephony antennas, while also dealing with all the pending and existing procedures on antennas (apart from those that have been already declared illegal), so as to speed up the lengthy licensing process, strengthen competitiveness, and facilitate investments in Greece.

It is important to add here that, along with the above, we plan to create an electronic map that will depict all the points in which antennas have been constructed or have been applied for. Thus, everyone will be able to check the conditions under which an antenna has been or will be installed.

## **New Generation Networks, Electronic Communications and the Digital Dividend**

It is equally important for us to fulfill as many of the preconditions as possible for the development of next generation networks by implementing the national strategy for Broadband. In this direction, the Joint Ministerial Decision on the "Procedure for granting Rights of Way for Electronic Communications" was





published in the Official Government Gazette (Issue B', no. 5/5-12-2012), while the fastest possible integration of the new EU Regulatory Framework ("Telecom package" Directives) for Electronic Communications is also a priority. Furthermore, we promote the regulation on the internal systems of buildings to establish the conditions and specifications for the installation of electronic and network systems in each new building, like those that are in place for electric systems and water supply. Lastly, with regard to television, Greece enters definitely in the digital era. With the expansion of digital television and the activation of more and more stations that transmit the content of digital providers, a broad range of frequencies has been liberalized (digital dividend). The utilization of the digital dividend and of the frequency spectrum in the best possible manner for our country, its consumers and the business community,

**Our goal is each consumer in Greece to have access to high speed Internet, in order to be well prepared for the global competition. Ensuring high communications standards for consumers is necessary for growth and information, so that our country can reclaim the place it deserves.**

is an essential and fundamental priority of our Ministry. For this purpose, we have already taken the necessary actions for creating a spectrum map of television stations, as a first step for our further actions.

Our goal is for every Greek to have access to high speed Internet, in order to be well prepared for the global competition. Ensuring high communications standards for Greek consumers is necessary for growth and information, so that our country can reclaim the place it deserves. In this way, we will be able to enhance the Information Society, make our country innovative, competitive, and a pole of attraction for big investments. We have assumed this responsibility and we aim to bring it into effect during our mandate. This is also the responsibility of our government, which is based on the European perspective, in which we are equal partners. •

<http://test.broadband.gr/>

# The System for Performance Evaluation of Broadband Connection Services (SPEBS)

by Dr. N. Papaoulakis, Member of EETT's Plenary and  
Dr. N. Tsarmopoulos, EETT ICT Expert

*The Internet has emerged as one of the most important and flexible communication networks, offering a multitude of applications that complement traditional media. Since the society and the economy of various countries are increasingly based on Internet infrastructures and services, ensuring the quality, the reliability, the integrity, and the smooth operation of these infrastructures and services is of critical importance.*

In order to promote transparency in the quality of Internet infrastructures and services, EETT has introduced the regulatory obligation for telecommunications operators to measure and publish statistical figures that reflect the macroeconomic "Key Performance Indicators" of their networks.

In addition to the Key Performance Indicators, EETT, in cooperation with the Institute of Communication and Computer Systems (ICCS) of the National

Technical University of Athens (NTUA), developed the System for Performance Evaluation of Broadband Connection Services (SPEBS), a Web 2.0 application which is available to Greek Internet users at <http://test.broadband.gr/>. It combines the M-Lab's measurement tools and the infrastructure of the Broadband Quality Measurements Node (BQMN1) with tools for geographically mapping and depicting measurements in the map of our country.

## The System of Performance Evaluation of Broadband Connection Services (SPEBS)

BQMN was developed to answer a series of questions such as:

- What are the performance characteristics of the broadband connection and how could I measure/verify them?
- What is the estimated maximum speed that I can expect from my connection (ADSL/VDSL)?
- Before I move to another area, how do I find information on the performance characteristics of the broadband connections in that area?
- How can I get information on the characteristics of the networks of the various operators in my area?
- How can I check whether the performance of a particular service (e.g., FTP, SMTP, torrent, VoIP, Video On Demand) is degraded on my connection by the network operator?
- How does the performance of a connection vary on different days/hours (e.g., peak hours)?

The geographic mapping of the availability and performance of broadband connections and networks is important both for the state and for businesses because it stimulates investment and growth. The high availability of

**Image 1:** Map of performance characteristics of broadband connections



**Image 2:** The NDT measurement tool



**Image 3:** The Glasnost measurement tool



good broadband infrastructures is a precondition for the establishment of new businesses requiring these infrastructures in certain areas and, vice versa, a lack in broadband infrastructures helps in better understanding the real needs of these areas to address the “digital divide”.

### The Functions of the Application

The SPEBS application allows every user to measure the performance characteristics of his/her broadband connection and to seek information on the performance of networks and connections in the map of our country (Image 1).

The “Network Diagnostic Tool” (NDT) (Image 2) measures the speed of data transmission in both directions, the delays in the transmission and the fluctuation of delays (jitter). Apart from these statistical data, it also checks whether the limitations in the performance of a connection are due to technical reasons by distinguishing between problems that are caused by the computer configuration from problems that are caused by the network infrastructure.

The Glasnost measurement tool aims to check whether a telecommunications services operator applies selective throttling or policing practices in the traffic of data packets, for certain applications. Currently, the tool



**SPEBS provides consumers, local communities, telecommunications operators, and development-oriented organizations, of both the public and the private sector, with detailed information and measurements data, to promote better decision making and fair competition in a rapidly developing telecommunications market.**

detects throttling or service blocking practices on email, HTTP, SSH, Video streaming (Flash) and Peer-to-peer (P2P) applications, including BitTorrent, eMule and Gnutella (Image 3).

### Depicting Measurements and Statistics

The depiction of measurement data on the map is conducted by the users during their registration in the SPEBS application. Registered users gain access to two additional functions that use the stored measurement data of their connection:

- The Evolution of measured performance characteristics in Time and
- The History of Measurements

The graphic depiction of measured performance characteristics in time (Image 4) allows the user to represent the temporal evolution of data, as well as to identify potential problems. The history of all user’s measurements on a connection (Image 5) is available for download, in the form of a text file (in CSV format).

### Conclusion

SPEBS is a pioneering, innovative Web 2.0 application that combines tools to measure the performance characteristics of broadband connections with tools for depicting these performance characteristics in the map of our country. It provides consumers, local communities, telecommunications operators, and development-oriented organizations, of both the public and the private sector, with detailed information and measurements data, to promote better decision making, fair competition in a rapidly developing telecommunications market oriented towards growth and the utilization of qualitative broadband access services and applications on the Internet. •

Image 4: Graphic depiction of measurements in time



Image 5: History of measurements of the user’s connection

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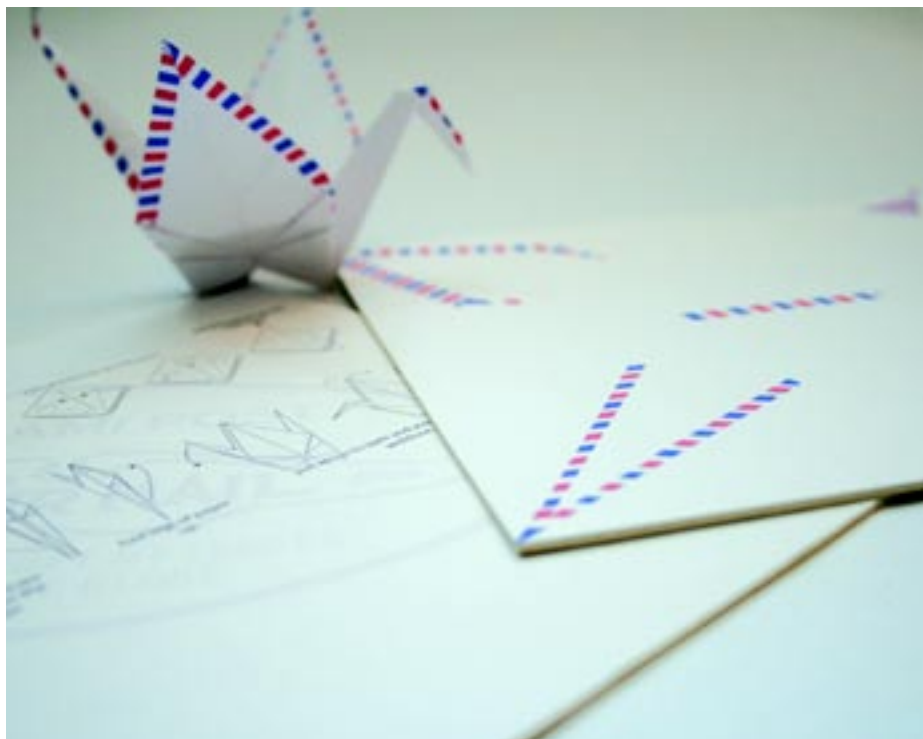
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# Greek Postal Market Review for the Year 2010

by Mrs. *Anastasia Tsalta*, Expert of EETT Postal Services Directorate

*EETT published the Greek postal market review for 2010. This review, which is published on an annual basis, aims to inform all interested parties, both consumers and businesses, about the developments and the special conditions prevailing in the Greek postal market. Moreover, it highlights important issues which are expected to influence the regulation and operation of the sector, especially in view of its liberalization after January 1, 2013.*



**B**oth the quantitative and the qualitative data which are presented in this review were drawn from the questionnaires sent by EETT to all postal services providers enlisted in the postal services providers registry on December 31, 2010.

The review begins with an analysis of the competitive framework in which postal services providers operate nowadays

based on Porter's model of five forces<sup>2</sup>. Subsequently, it analyzes the basic figures of the postal market and the economic data that were drawn from the financial statements published by postal services providers. Furthermore, it presents the results of the national survey on the preferences of Postal Services users, which was conducted on behalf of EETT, and it also presents data on consumer complaints that were submitted to both

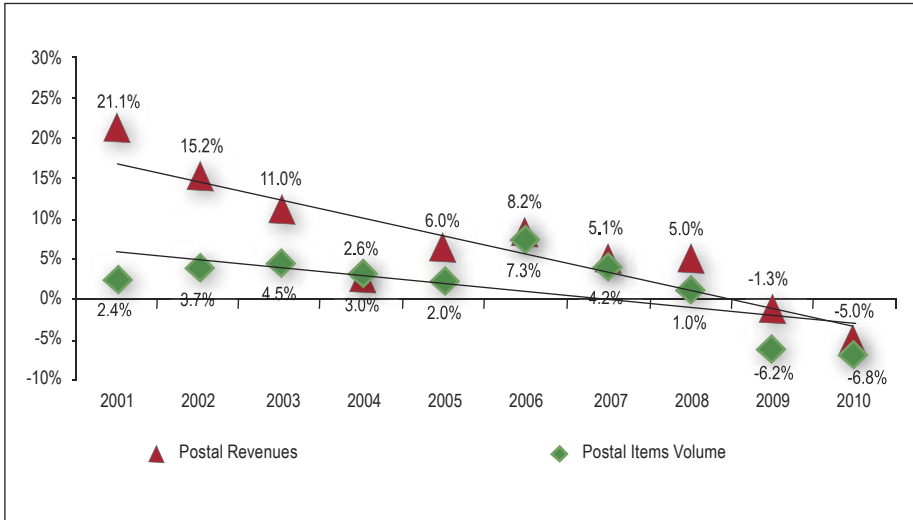
EETT and the Universal Service Provider (USP). The review concludes to a presentation of the Greek and European postal legislation and an analysis of the European postal market.

According to the results of the review, the postal market in Greece has suffered a heavy blow from the crisis that affects the domestic economy. This is demonstrated by the significant decline in 2010 both in the number of postal items handled and in the revenues of all three sectors of the postal market (Courier, Individual Licenses, and Universal Service Provider-USP). With regard to the total number of items handled, the decrease amounted to 6.8% compared to 2009, resulting in a fall of the total volume by 678.5 million items. Additionally, total revenues for 2010 reached 705.9 million Euros, that is to say, 5% less than the preceding year. Moreover, the number of employees in the postal market decreased by 2,179 (10.3%) according to the data published by the companies operating in the sector.

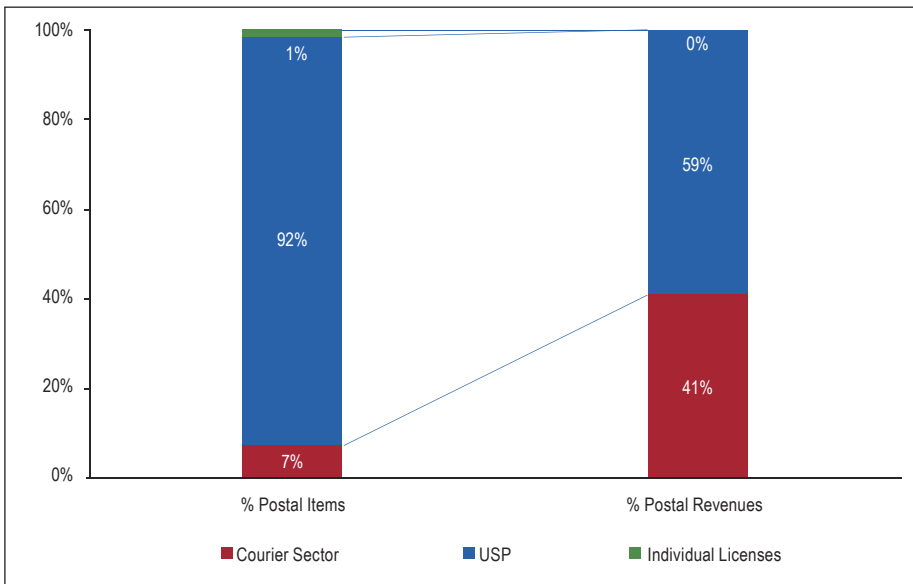
By processing the published data, it appears that the spread of other means of communication and business activities (e.g., e-mail, social media, e-invoicing) contributes to the further substitution of traditional Postal Services and brings about a further reduction in the postal volumes and their respective revenues. In contrast, the rise of electronic commerce affects positively the number of parcels handled. It is indicative that the volume of letter posts reduced by 7.3% (or 51.5 million items), in contrast to parcels whose volume rose by 8.6% (or 1.6 million items). The USP had the greater decline in the volume of postal items, which is explained by the fact that it holds the dominant position in the category of letter posts (with a 91.4% market share) compared to Courier operators.

The number of companies which are active in the postal sector increased in 2010, mainly due to the Courier sector. The postal services providers under

**Chart 1:**  
Annual Change in Revenues and in Volume in all Sectors of the Postal Market



**Chart 2:**  
Postal Market Shares in Volume of Items and in Revenues



General Authorization enlisted in the EETT registry reached 496, increased by 35 compared to 2009. Moreover, the number of Courier operator networks reached 818 in 2010, increased by 74 compared to 2009. The number of companies in Universal Service (US) sector remained stable compared to 2009, with only six companies, including the USP. During 2010, the majority of postal

items volume was handled in the big urban centers of Attica and Thessaloniki, which have the highest concentration in population and businesses. More specifically, more than 82% of postal items were handled in Attica and Northern Greece, while the remaining 18% was handled in the rest of Greece. The average revenue per postal item, both for the USP and for Courier, remained relatively stable compared to

2009, showing a marginal increase by 0.3% for the USP (where the prices in the list remained the same as in 2009) and a marginal decrease by 0.4% for Courier.

As regards to Europe, the European Union continued its progress towards full liberalization of the postal market, with eleven member states (Austria, Belgium, Bulgaria, France, Denmark, Ireland, Spain, Italy, Malta, Portugal, and Slovenia) ending their USP's monopoly over the Postal Services (exclusive sector) in December 31, 2010. In Greece, full liberalization has been set for January 1, 2013.

The data and conclusions of this review will contribute significantly to EETT's work, which aims at promoting growth and ensuring the sustainability of the US in cooperation with all stakeholders. •

Full text of the review is posted on EETT's website at <http://www.eett.gr>, in the section of Postal Services / Market Analysis.

1. Porter's model studies the competitive environment in which an organization is operating by focusing on the various forces making it up. These five forces are:

- 1) The entry of new players in the market,
- 2) The threat from substitute products,
- 3) The bargaining power of customers,
- 4) The bargaining power of suppliers,
- 5) The competition between existing players.

# BEREC's Delegation to the USA

*In November 2011, a delegation from the Body of European Regulators for Electronic Communications (BEREC) visited the USA. The primary goal was to meet with the Federal Communications Commission (FCC) and discuss issues of common interest, and a secondary goal was to meet with major US market players to discuss their strategies and the challenges that they face.*

The European delegation included the BEREC Chair, Mr. Chris Fonteijn (Netherlands), the Vice-Chairs, Dr. Georg Serentschy (Austria), Dr. Leonidas Kanellos (Greece), and Mr. Hrafnkell Gislason (Iceland), as well as Mr. Vesa Terava, a high-ranking official from the European Commission. EETT was responsible for planning and organizing the delegation, which was admittedly acknowledged as highly successful.

The BEREC-FCC meeting covered a broad range of issues and concluded in an agreement on the expansion of the cooperation between the two institutions as well as on the need for promoting a

wider international dialogue on issues relevant to the regulation of the Electronic Communications market. Among the discussed topics were:

- The protection of the Internet neutral use, which is a main vehicle for the development of the Knowledge based Society. FCC has already adopted the relevant framework, which has been accepted by most market players but has been disputed in court, a fact that reflects the subtlety and the controversy of the issue.
- The need for formulating a set of principles, which will promote the open use and freedom of the Internet, encouraging investments while at the

same time will fully protect privacy and security.

- The recent reform of the Universal Service fund in the USA, which is considered one of the main achievements of FCC's present administration and the foundation for the US national broadband strategy.
- The manner in which the European Regulatory Framework ensures the ability of alternative operators to access Electronic Communications infrastructures. There is no relevant provision in the US institutional framework.
- The European regulatory framework for international roaming, which has contributed to the significant decrease in the cost of calls for travelers within the European Union (EU).

The meetings with the big market players were equally interesting. Among the topics discussed, were the investment strategies of international operators, such as AT&T and Verizon, which focus on Next Generation Access networks, both mobile (LTE) and fixed (VDSL, FTTH). Such investments face significant challenges. The development of LTE networks requires additional spectrum, which is currently lacking in the USA. Also, the financial markets remain distrustful with regard to return on investments in fixed new generation networks. Operators consider the development of integrated services with an emphasis on cloud computing applications, as a key to the effective exploitation of the new infrastructure. So, they invest heavily and systematically in this direction. Our country, but also the EU as a whole, must take serious consideration of such developments, so as not to fall further behind in competitiveness.

The meeting with one of the pioneers of the Internet, Dr. Vint Cerf of Google, was of particular interest. According to him, the greatest challenge for the Internet industry today is the transition to IPv6 to deal with the lack of IP addresses. Dr. Cerf urged BEREC and the EU to take initiatives in this direction. •



In the first row, from left to right: **Dr. M. Karatzoglou**, Head of the Market and Competition Monitoring Department of EETT, **Dr. Leonidas Kanellos**, EETT President and BEREC Vice-Chair, **Mr. Julius Genachowski**, FCC President, **Mr. Georg Serentschy**, BEREC Vice-Chair. In the second row, from left to right: **Mr. Chris Fonteijn**, BEREC Chair, **Mr. Hrafnkell Gislason**, BEREC Vice-Chair, **Mr. Vesa Terava**, European Commission executive.



# Regulation on Spectrum Management in the Unbundled Local Loop

*The most important factor in the rapid growth of broadband access during the last decade was the significant technological advancement and the wide acceptance of xDSL technology systems. The xDSL family (including, for example, SDSL, ADSL, VDSL etc.) became the main technology for offering broadband access services to end users.*

However, the increase of the penetration of various xDSL technologies into the copper access network highlighted an important factor that degrades the quality of the services offered by this particular technology. This factor is crosstalk, and it is an unavoidable natural phenomenon which is related to the electromagnetic interaction during the transmission of xDSL signals through the pairs of the same cable. More particularly, crosstalk refers to electromagnetic interference between high frequency signals that are transmitted in adjacent pairs. It is caused by the coupling of fields that are produced around the respective pairs of twisted conductors and it depends on the length through which the mutually interfering signals travel and on their frequency. The impact of this phenomenon on the quality of the access service depends on the degree of spectral overlap as well as on the power infusion of the various types of xDSL technology that co-exist in the various points of the local loop.

The problems of spectrum incompatibility and the ensuing reduction in the quality of access services offered to the end user are expected to increase with the penetration of VDSL2 technology. Having recognized early the need for ensuring the quality of broadband services, EETT established a working group composed of members from its own staff, with a view to drafting and institutionalizing a Regulation on Spectrum Management in the local loop.

The aim of the Regulation is to establish a set of rules governing the development and operation of the different systems in specific points of the local loop –Local Exchanges, outdoor distribution frames (KV or ONUs), end user equipment–to minimize the mutual interferences due to the introduction of xDSL technology signals. These rules will be applied by both the provider with Significant Market Power (OTE) and by the alternative providers who offer xDSL technology broadband services via the current copper access network. Accepting the common rules will ensure equal access to the network for all market operators and will prevent practices that may harm fair competition.

EETT, in cooperation with stakeholders (OTE, alternative operators), studied the legislative/technical parameters of the Regulation in the framework of an expanded working group. After the group finished its work, it drew up a draft Regulation and brought it to Public Consultation. After taking into consideration the relevant remarks by market players, the Regulation is expected to come into effect in the beginning of 2012.

The benefits that will accrue from implementing the Regulation on Spectrum Management in the local loop are the following:

- Optimizing the performance of the equipment connected to Local Exchanges or KV/ONUs with regard to the range of geographic coverage and the provision of higher quality



broadband services.

- Minimizing (with the prospect of eliminating) the mutual interferences between the xDSL signals that damage the quality of the services offered to consumers.
- Giving all providers operating in the broadband services market the ability to introduce new technologies by installing equipment in the local loop and offer innovative services to their subscribers.
- Using more effectively the resources of the copper access network by creating a sound environment for investments in the broadband services market.
- Minimizing potential requests for dispute resolution on issues relating to mutual interferences between providers and settling disputes in a way that is both transparent and known in advance.
- Ensuring technological neutrality in the use of the copper access network. •

# EETT's Advice on the Use of Smart Phones

*Following a large number of consumers' complaints regarding disputed and unwanted charges, EETT issued recommendations on the best and safest way that consumers can use smart phones as Internet navigation tools.*

Smart phones have emerged as very useful tools because they combine the functions of a mobile phone, a personal computer connected to the Internet and, very often, a GPS receiver. EETT's information campaign aims to shape a policy of "proper use" for preventing and avoiding unwanted or excessive charges, as well as for protecting users from malware that may be installed without their accord. EETT recommends to consumers to inform themselves about the technical features of the device, to read the instructions carefully, to learn how to deactivate the automatic connection to the Internet,

as well as to study the current policy on charges for access and for wireless transmission of data applied by mobile telephony operators both in Greece and abroad.

With regard to issues of protection and security, EETT advises consumers, among other things, not to skip software updates, which often contain important security additions, to download applications only from lawful and reliable sources, and to be careful when connecting to free public WiFi hotspots. •

*Detailed information for consumers is posted on EETT's website at [www.eett.gr](http://www.eett.gr).*



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