



NBTC

Annual Report 2012




Digital
Thailand



 **USO
NET**

ศูนย์เรียนรู้ รัฐ ไร้รอยต่อ





Communications are an essential factor in national development, prosperity and security. with regard to the continuously changing situations in the world , prompt communications is highly important. All parties and all agencies related to national communications should therefore cooperate with one another and share their achievements closely and harmoniously. Most importantly they should research deeply and widely into modern knowledge and technologies, select good and certainly effective parts and apply them wisely and proactively in the way that suits the status and condition of our country in order that national communications in the way that suits the status and condition of our country in order that national communications can improve to the fullest and perfectly facilitate the economic and social development as well as the stability of the nation.

Chitralada Villa

15 July 1983

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(The Royal Proclamation was bestowed on the occasion of the centennial of the Post and Telegraph Department and the National Communications Day on 4 August 1983)

Preface

According to the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E. 2553 (2010)'s Article 76, the Office of the National Broadcasting and Telecommunications Commission must prepare an annual report, elaborating its performance in management of radio frequency, and broadcasting and telecommunications services business operations, work plans and results, as the case may be, and future work plans. The annual report must be submitted to the Cabinet and the Parliament within one hundred and twenty days as from the ending date of each calendar year, and shall be disclosed to the general public for acknowledgement.

The National Broadcasting and Telecommunications Commission (NBTC) has thus prepared the NBTC Annual Report 2012, which would be submitted to the Cabinet, the House of Representatives and the Senate. This report described major achievement, key activities and performance of NBTC throughout the year. Effectiveness of the Broadcasting and Telecommunications Research and Development Fund for the Public Interest and trend on the provision of broadcasting and telecommunications services in 2013 were also presented in this report. Other issues were included annual expenditure budget in the year 2012 and annual budget expenditure for the year 2013. More detailed information was revealed in this report.

The NBTC believes that this report will provide useful information for monitoring and investigating the performance of the NBTC on spectrum management, broadcasting and telecommunications businesses regulation in the past year, which is in accordance with the purpose of the laws, including the benefits to related parties, and the general public.

**The National Broadcasting
and Telecommunications Commission (NBTC)**

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Section |

1

Background for the establishment of the NBTC

The Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Service B.E.2553 (2010) which has become effective since 20 December 2010 prescribed that there shall be the National Broadcasting and Telecommunications Commission (NBTC) having powers and duties to assign the frequencies and to regulate the broadcasting and telecommunications business with regard to utmost public benefit at national and local levels in education, culture, state security and other public interests as well as free and fair competition. However, Section 80 of the Act prescribed that during the absence of NBTC under this Act, the National Telecommunications Commission (NTC) who was appointed under the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunication Services B.E. 2543 (2000) shall continue to perform the duties as the NBTC under this Act except the broadcasting business under the broadcasting Business Act, which shall be in accordance with that law.

On October 7, 2011, the Royal Proclamation appointed the National Broadcasting and Telecommunication Commission, under Section 17 of Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E. 2553 (2010), comprising eleven persons as follows: Air Chief Marshal Thares Punsri as Chairman, Colonel Natee Sukonrat as Vice-Chairman, Colonel Settapong Malisuwan as Vice-Chairman and other eight commissioners who are Lieutenant General Perapong Manakit, Mr. Suthiphon Thaveechaiyagarn, Police Colonel Taweesak Ngamsanga, Mr. Prasert Silhipat, Mr. Thawatchai Jittrapanun, Ms. Supinya Klangnarong, Mr. Prawit Leesathapornvongsa, and General Sukit Khamasunthorn.

The NBTC has commenced on their duties since October 7, 2011 onwards. However, during the absence of the NBTC, from January 1 to October 6, 2011, the NTC who was appointed under the Act on Organization to Assign Radio Frequency and to regulate the Broadcasting and Telecommunications Services B.E.2543 (2000) had acted on behalf of the NBTC for all duties and responsibilities as prescribed by the Transitory Provisions of the above mentioned Act.



Highlights in the Year 2012

Master plan completed before the deadline

In 2012, The NBTC has formulated and adopted the three master plans: 1) Spectrum Management Master Plan and National Table of Frequency Allocation B.E. 2555 (2012) 2) Broadcasting Master Plan No.1, B.E. 2555-2559 (2012-2016), and 3) Telecommunications Master Plan No.1, B.E. 2555-2559 (2012-2016) completed before the time frame prescribed by law. The three Master Plans consider as tools and mechanisms for regulation broadcasting, television and telecommunications services comprehensively.

After the three Master Plans taking into effective, NBTC has issued rules and regulations in order to lay down the foundation for the development of broadcasting and television business in the country under the framework of the master plan and the NBTC's Notification of the NBTC including spectrum licensing for the International Mobile Telecommunications (IMT) in frequency range of 2.1 GHz (3G).

3G Spectrum Auction Success

The NBTC has conducted radio frequency allocation for International Mobile Telecommunications in frequency range of 2.1 GHz (3G) by spectrum auction process in accordance with Section 45 under Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E. 2553 (2010), which would make the allocation of spectrum to meet international standards, transparently and effectively as well as fostering competition among operators and licensee who have been allowed to use the 2.1 GHz frequency spectrum can use this frequency to providing services for 15 years from the date of receiving the license. When matured, Licensee must return the spectrum to the NBTC so that they can allocate to the new operators.

The NBTC has assigned the Office of the NBTC for drafting the NBTC's Notification on Rules and Procedures for Regulation of Spectrum Licensing for International Mobile Telecommunications and managing the 2.1 GHz public hearing to obtain comments on the draft NBTC's Notification from the stakeholders and the general public on July 20, B.E. 2555 (2012), with a total of 460 participants consists of telecommunications operators, governmental agency, financial sector and banks as well as general public, including the media and NBTC staffs who involved.

It has been open for feedback from stakeholders to the draft of NBTC's Notification on Rules and Procedures to License for the Use of Spectrum for International Mobile Telecommunications in 2.1 GHz frequency band B.E. 2555 (2012) and draft of the NBTC's Notification on International Mobile Telecommunications Frequency Plan frequency band 1920 - 1980/2110 - 2170 MHz and the frequency bands 2010 - 2025 MHz. Later, the NBTC has issued the NBTC's Notification on Rules and Procedures to License for the Use of Spectrum for International Mobile Telecommunications Business in the 2.1 GHz B.E.2555 (2012) and was promulgated in the Royal Gazette, No. 129, Special 130, on August, 2012.

In addition, the Office of NBTC has summarized the Information Memorandum to allow for use of the spectrum. For International Mobile-Telecommunications for both 2.1 GHz and has published a notice inviting interested bidders through website of NBTC (www.nbtc.go.th) from 28 August to 27 September 2012, with a request to obtain a license, totaling 17 cases and opened to apply for licenses

to use spectrum for International Mobile Telecommunications at Auditorium in office of NBTC, on 28 September 2012.

Results of the 2.1 GHz spectrum for IMT auctions has divided into two rounds, with seven bids in all nine slots; the first two slots valued at 4,950 million bahts per slot , another slot valued at 4,525 baht and the remaining six slots valued at 4,500 million bahts per slot. The auction of the 2.1 GHz spectrum for IMT has led to allocate the 2.1 GHz of frequency band 45 MHz for the amount of 41,625 million baht.

Advanced Wireless Network Co., Ltd. was the bidder, who offered highest price at 14,625 million bahts had the right to choose frequency first. The company chose the frequency band of 1950 MHz -1965 MHz and 2140 MHz - 2155 MHz, while Real Futures Co., Ltd. and DTAC Network Co., Ltd offered at the same price so they had to determine by ballot, which the Real Futures was the first to selected frequency band of 1935 MHz - 19500 MHz and 2125 MHz - 2140 MHz while DTAC Network got the remaining frequency band of 1920 MHz. - 1935 MHz and 2110 MHz - 2125 MHz.

After the end of the auction, the NBTC announced a formal auction results within three days and the NBTC approved the use of the 2.1 GHz IMT spectrum licenses which lasts for 15 years from December 7, 2012 to December 6, 2027, and approved the third type of telecommunications license to winner bidders after they had completed the terms and conditions of the auction within 90 days of receiving notice of the auction result.

The other major telecommunications business regulations

Additionally, the NBTC has driven the development of rules for mediation in the telecommunication business to alternative dispute resolution for consumers which is considered as pioneer of the dispute resolution systems in Thailand's Telecommunication sector and issued the NBTC's Notification on Maximum Rate of Telecommunications Services for Mobile Phone Services on Voice B.E. 2548 (2005) which led to limit local mobile phone service providers to charge not more than 0.99 baht per minute fee, effective from January B.E. 2556 (2013) onwards.

However, the NBTC has adopted the Universal Basic Telecommunications Service and Social Service Plan B.E. 2555-2559 (2012-2016) to serve as a guide for operation in the next 5 years. This plan will lead to the expansion of high speed internet services and more than 80 percent of Thai people expected to have access to high-speed telecommunication networks.

The NBTC has also issued the NBTC's Notification on Universal Basic Telecommunications Services and Social Service B.E. 2555-2559 (2012-2016) to guide to set the areas, target group and time frame of the operation, including the appointment of the Executive Committee of Research and Development Fund for Broadcasting and Telecommunications Business for Public who will set the policy framework, guidelines on the management of the Fund to be more efficient in accordance to the law. This showed that the NBTC had focused on consumer protection from being exploited and fostering free and fair competition among operators continuously.



The forthcoming digital TV auction

For laying the major foundations for broadcasting business after the Master Plan for Broadcasting and Telecommunications Business No.1 B.E. 2555-2559 (2012-2016), was promulgated in the Royal Gazette on April 4, 2012, the National Broadcasting Commission of the NBTC (NBC) has implemented the mission and objectives of the Master Plan for Broadcasting and Telecommunications Business by setting up the process to issue the NBTC's Notifications on Guidelines and Criteria related to Broadcasting and Television Business including license approval, regulation and transformation to digital system which generated 19 NBTC's Notifications issued in 2012.

For broadcasting business licensing, the National Broadcasting Commission has prepared broadcasting operators to deal with the licensing process in accordance with the categories set out in the Broadcasting Business Act 2551,(2008) which has opened the application process to the broadcasting business including the cable television and satellite television can apply for a license to operate under the law.

In addition, to promote the effective use of the radio spectrum resources and useful for the administration of frequency to be sufficient for usage in the future, the National Broadcasting Commission has determined that the holders have to submit the request informing the necessary causes to hold frequency Spectrum. On regulation side, the National Broadcasting Commission has set standards for operation in terms of content quality and beneficial to the public as well as manages the various complaints.

The National Broadcasting Commission has also organized several seminars in order to educate operators and consumers protection about the transformation into the digital television signal transmission system. The National Broadcasting Commission has also set the policy framework, guidelines and time frame of the transition and conduct the studies as well as collaboration and coordination with other agencies including cooperation in educational programs with international experts in the Roadmap on Transition from Analogue to Digital Terrestrial Television Broadcasting project and has cooperated with other relevant agencies concerning the cooperation in the system trials of transmission of radio and television broadcasting in digital, and etc.

In 2013, the National Broadcasting Commission has continued to implement the goals set out in the Master Plan for Broadcasting and Television Business No.1 B.E. 2555-2559 (2012-2016) as well as the missions, which have not been completed in 2012 such as the licensing and regulation of broadcasting business, consumers protection, promoting the right to freedom of communication and improving the quality of services as well as the transition to digital system.

The draft of the NBTC's Notification on Criteria and Procedures for Selecting a frequency in broadcasting business is the important draft concerning the digital TV auctions of 24 business channels. The draft will set the qualifications of the bidders such as bidder has to be operator which is licensed by the NBTC, bidder must not have conflict of interest or cross holding with the other bidders and the National Broadcasting Commission will cancel the auction if it is equal to or less than the number of bidders who bid in each channel group, such as in news channels auction totaling 5 channels, number of bidders must more than 5 bidders.

For the auction method of the 24 digital TV channels, it will use an electronic auction under the regulations of the Prime Minister's office. The auction will be divided into groups consisting of (1) 5 children programs channels group, (2) 5 news channels group (3) 10 General channels group and (4) 4 high-definition (HD) channels group.

Time frame for implementation of digital TV auction has started from February 2013 when the ceiling holding of channels, starting auction price, coupon's price for supporting equipment in technology transition.

During March to April 2013, it is expected for the time for licensing to telecommunication network services to business using radio frequency or digital TV and preparation of the prospectus for investment into digital TV auction.

In May 2013, the licenses of 12 'public services' type digital TV channels has been allocated. During July to August 2013, the auction of 'business' type digital TV channels totaling 12 channels will take place and licensing of 'community services' type digital TV channels Channel 24 will occur by the end of 2013.

Futher timeline

The National Broadcasting Commission meeting has approved the draft of the NBTC's Notification on Rules, Procedures and Conditions for the Auction of Spectrum for Digital Television Services in National Business Services Type B.E. ... The next step of this process is to open for public comment and after that the results will be submitted to the NBTC board for consideration, before being promulgated in the Royal Gazette. This process is expected to take about 45-60 days and the auction will occur in September, 2013.

At the meeting of the National Broadcasting Commission has acknowledged the selection of organizer to manage the spectrum auction for 24 business type digital TV channels by electronic auction method. CAT Telecom Public Co., Ltd. is selected to be the organizer of digital TV auction in accordance with the procedure which the NBTC has set and assigned Office of the NBTC to inform CAT Telecom by written letter in order to confirm that CAT Telecom will not take part in digital TV auction any way. The auction of digital TV is expect to cost around 3-5 million baht.

Research and Development Fund Acts.

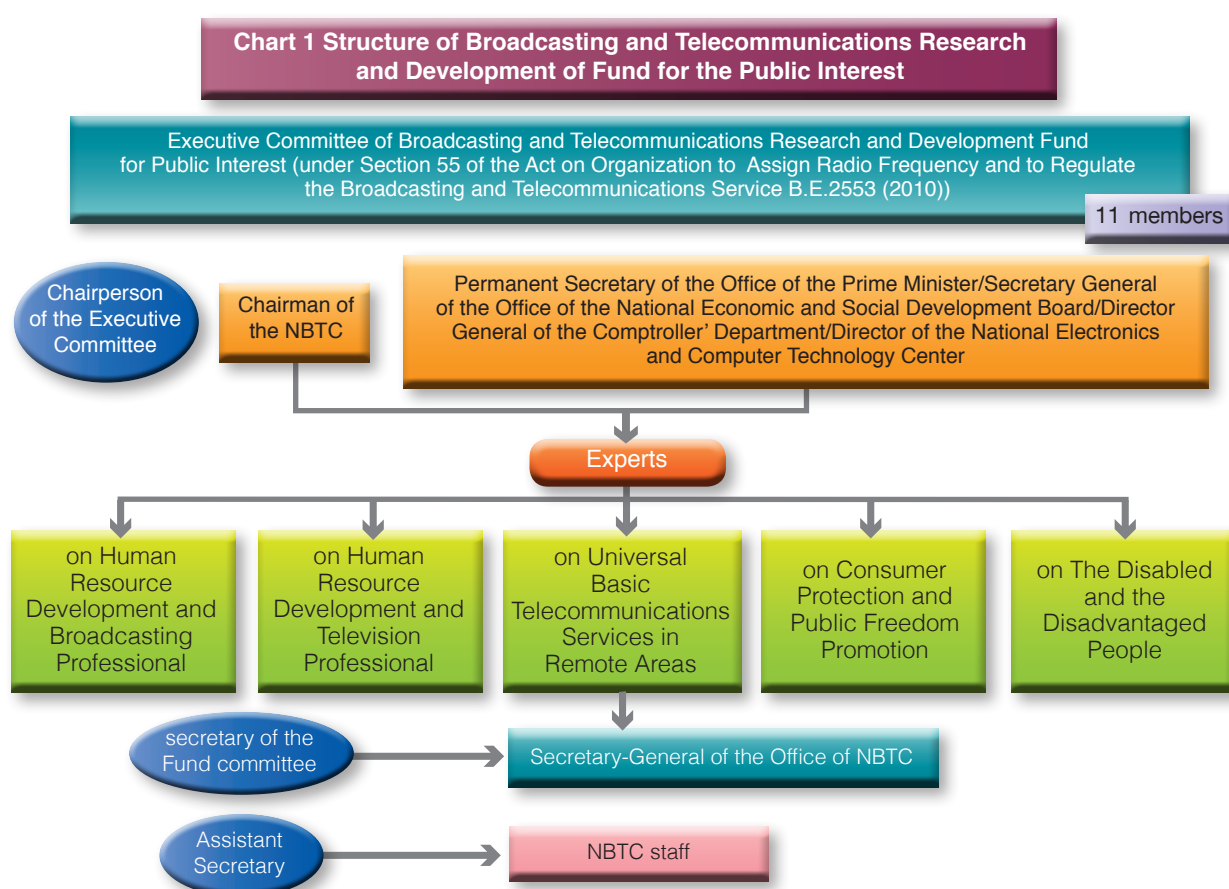
According to the Universal Basic Telecommunications Services and Social Services Plan B.E. 2555-2559 (2012-2016), this plan has layed out the guide in setting the area, target group and time frame of operation, including the appointment of the Executive Committee of the Research and Development Fund for Broadcasting and Telecommunications Business for Public Interest, which have the duties to set the policy framework, guidelines on management of the Fund to be more efficient as required by the law.

The Broadcasting and Telecommunications Research and Development Fund for Public Interest was established under the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E. 2553 (2010) Chapter 4 on Broadcasting

and Telecommunications Research and Development Fund for the Public Interest. The Fund Management Committee was consisted of Chairman of the NBTC as the Chairperson, Permanent Secretary of the Office of the Prime Minister, Secretary General of the Office of the National Economic and Social Development Board, Director General of the Comptroller' Department, and Director of the National Electronics and Computer Technology Center as members and 5 experts with relevant knowledge and experience as well as Secretary-General of the Office of NBTC as and secretary of the Fund committee, totally 11 members, to manage the Fund and comment related to the allocation of funds in order to fulfill the objectives to the NBTC board.

The Executive Committee of the Fund has duties to make decision fund approval as well as setting regulations relating to storage, spending, accounting and accounting system of research and development fund. The Bureau of Research and Development Fund will be appointed as the secretariat of the Executive Committee of the Research and Development Fund, which has already started its duties from 20 January 2012 onwards. During the first year of operating the fund is the time for preparation for fund management, collecting the money and allocating funds in efficient way in accordance with the Fund's objectives.

The structure of Broadcasting and Telecommunications Research and Development Fund and the authority of Management Committee of Research and Development of broadcasting and telecommunications business for the public interest has indentified in the following detail:



Source: Bureau of Research and Development Fund of Broadcasting and Telecommunications Business for Public Interest

Authority of the Administrative Committee of the Fund.

Under Section 55 of Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E. 2553 (2010) has defined the authority of the Executive Committee of the Fund as follows.

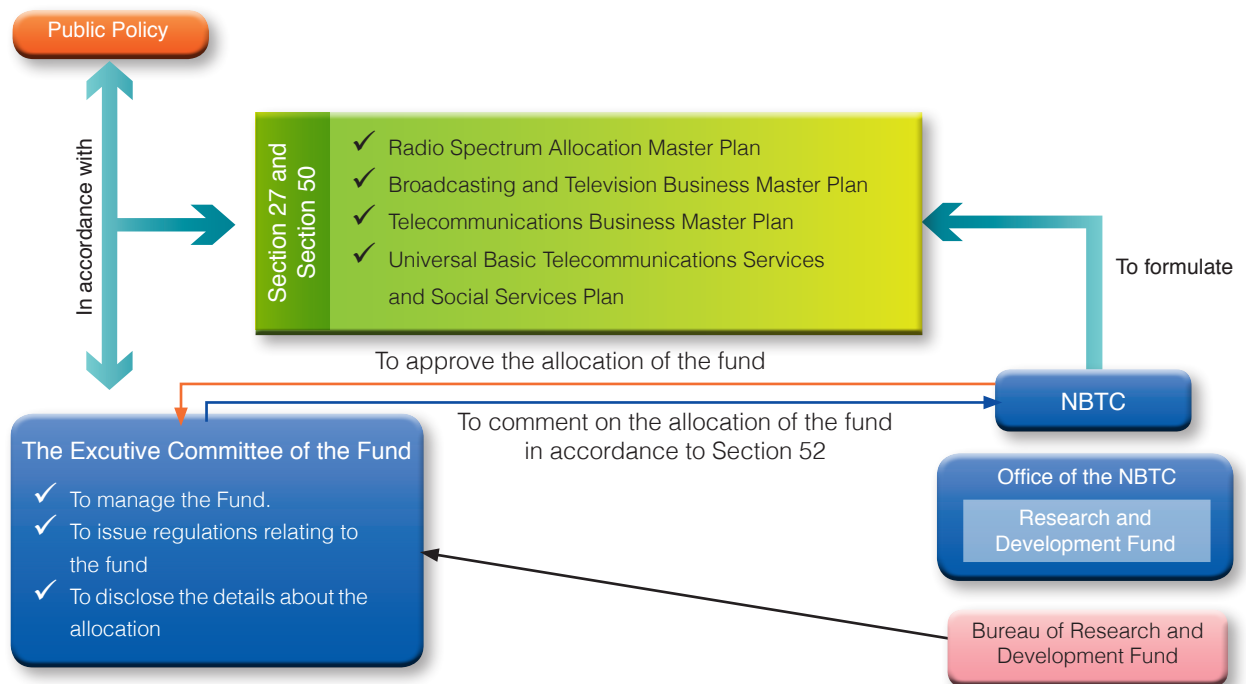
- 1) To manage the Fund.
- 2) To comment on the allocation of the fund in accordance to the Fund's submitted to the NBTC for approval.
- 3) To issue regulations relating to the storage, spending, accounting and fund accounting system.
- 4) To disclose the details about the allocation and operation of the Fund to public through electronic media of the NBTC.

Linkage of the Fund and the NBTC

Under the authority of the executive committee fund as mentioned above, there is a link between the Executive Committee of the Fund and the NBTC. If considering the intention of the Act to set up the Fund as joint unit of Fund's Executive Committee and the NBTC, If without responsibility of a party, the allocation of funds would violate the law which focus on the the performance of management of research and development fund.

The year 2012 was the first year that the Executive Committee of the Fund had begun to manage. In this first phase, it was the time for preparation to lay ground for the managing the Fund in order to keep on the implementation of the scheme systematic and stable. Therefore, the Commission has set the policy for the management of the Fund effectively by set rules and procedure under Section 55 of Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E. 2553 (2010) to ensure the preservation and allocation of funds to be orderly and fair to all sectors and to achieve the objectives of the Fund as follows:

Chart 2 Linkage of the Fund and the NBTC



Source: Bureau of Research and Development Fund of Broadcasting and Telecommunications Business for Public Interest

Rules and related regulations

1) Regulation of the Executive Commission of Broadcasting and Telecommunications Research and Development Fund for Public Interest on the preservation, spending, accounting and accounting system B.E. 2555 (2012), which was promulgated in the Royal Gazette No. 129, Special 156 (d) on October 15, 2012.

2) The NBTC's Notification of Executive Commission of Broadcasting and Telecommunications Research and Development Fund for Public Interest regarding Rules, Procedures and Conditions for Disbursement of Funds, Monitoring and Evaluation on Broadcasting and Telecommunications Research and Development Fund for Public Interest which was promulgated in the Royal Gazette No. 129, Special 168;(d) on November 5, 2012.

Strategic Plan for the Management of the Fund

Objectives of managing the Fund are to create stability and response the needs of residents and business operators in broadcasting and telecommunications business for public interest thoroughly as well as modernizing to keep pace with changes in technology economy and society completely and beneficial to the public interest. Therefore, the Executive Committee of the Fund has set a policy framework and strategic plan for the year 2012-2016, which were reported for acknowledgement and informed the NBTC meeting (11th/2012) on August 22, 2012. The policy and strategic plan for management of the Fund as shown below.

1) To manage and allocate funds in order to provide people with services in broadcasting and telecommunications business, development of communication resource development, research and development, media literacy, technology of spectrum, information technology and technological facilities for the disabled, elderly and disadvantaged group as well as telecommunications industry and related industries.

2) Development of human resource in the broadcasting and telecommunications business as well as in information technology to support organizations which are responsible for setting the ethical standards of profession in accordance with the Act on Broadcasting Business in order to protecting consumers in broadcasting and telecommunication business and supporting the implementation of the Law on Safe and Creative Media Development Fund.

Fund allocation policy is based on the discretion of the Executive Committee of the Fund to determine how to allocate additional fund, such as the percentage of funds allocated to the fund in accordance with the objectives and conditions as stated in law.

3) To support the implementation of supplementary services in deprived areas thoroughly in accordance with the Universal Basic Telecommunications Services and Social Services Plan B.E. 2555-2559 (2012-2016), developed by the National Telecommunications Commission and support the Broadcasting Universal Broadcasting Service to people, developed by the National Broadcasting Commission.

4) To support the business sector and civil society to take the primary role or co-operation with the Fund to push for implementation in accordance with the purpose of Section 52 of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E. 2553 (2010).

5) To promote and support people and the youth play a role as a provider of knowledge on education, profession and culture through broadcasting media, TV and telecommunications media.

Policy on fund management

1) To manage budgeting of the Fund on basis of budgeting on result based management in order to focus on people centric operation as goal and mission and create consistency from the policy level to activity level.

2) To manage the Fund stable and self-reliant by preparation of a financial plan within the next 5 years (B.E. 2555-2559) which have a clear estimate of the revenue from different sources, allocation of funds to target groups and taking capital fund invest in safe and good return

3) To maintain capital fund properly and stably to support the operational mission both in short and long term.



The Fund's Strategic Plan 2012-2016

Strategy 1: To promote and support the development of broadcasting and telecommunications business across the country, consumer protection across all target groups, providing people access to fast data communication services at a fair and reasonable basis, the use of communications services in the development of quality of life and business as well as allocation of funds according to the requirements of Section 52 and Section 53 of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E. 2553 (2010).

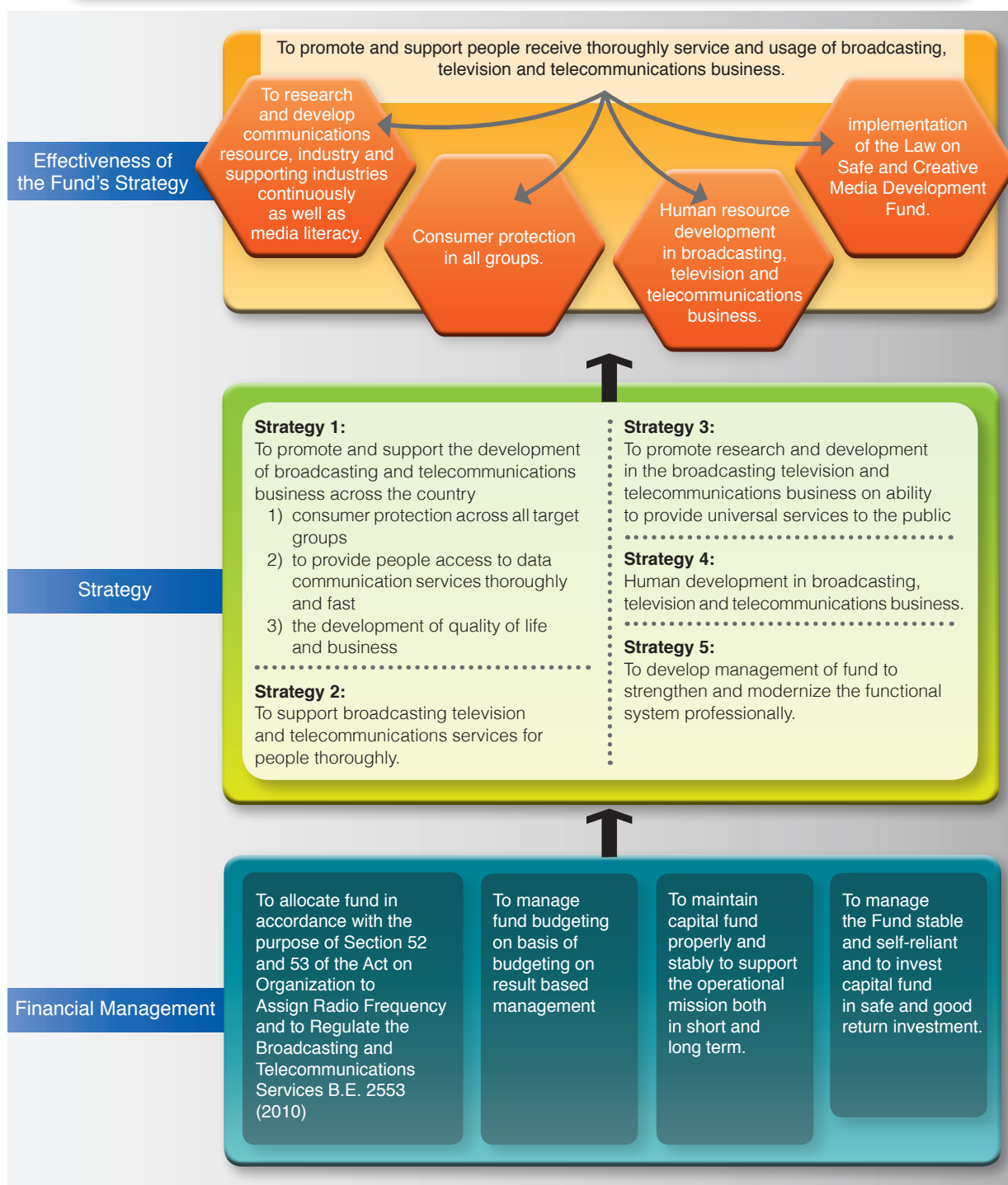
Strategy 2: To support broadcasting and telecommunications services for people to get news and information through television, radio and telephone communications as well as high-speed internet in all areas in the country thoroughly.

Strategy 3: To promote research and development in the broadcasting telecommunications business on ability to provide services to the public with quality and effectiveness.

Strategy 4: Human development in broadcasting and telecommunications business to keep pace with the changes of advanced communication technology and has ability to media use for beneficial to career and life properly.

Strategy 5: To develop management of fund to strengthen and modernize the functional system professionally in order to support the implementation of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E. 2553 (2010) effectively.

**Chart 3 Strategic Map of Broadcasting and Telecommunications
Research and Development Fund for Public Interest B.E.2555-2559 (2012-2016)**



Source: Bureau of Research and Development Fund of Broadcasting and Telecommunications Business for Public Interest

Guidelines for allocation of funds for public interest

Allocation of funds in accordance with budget framework can be divided into two types, as follows,

1. Projects which the Executive Committee of the Fund prescribed.
2. Projects from the applicant to promote and support in term of fund in order to achieve the objectives under Section 52 and to promote, support and comply with government policy and policy in the 3 Master Plans of NBTC.

Promoting and supporting funding implementation, the two types of projects will be driven the research and development, resolved and alleviated the problems in broadcasting and telecommunications business in two dimensions: implementing policy into practice (Top-down Approach) as well as encouraging the target people in line with the objective as participants in setting direction of development directly (Bottom-up Approach), which will occur in 2012 onwards. It is considered as a mechanism for sustainable development.

Efficiency and Effectiveness of Complaint Management

Complaint problems

In 2012, the complaints about the telecommunications business, which the Office of NBTC has received, are 2,261 cases. They are divided into 1,237 completely resolved complaints account for 54.70 percent of all complaints and on the process of consideration 1,024 cases, account for 45.30 percent of all complaints as follows;

- 1) Mobile phone (cellular) with 1,709 complaints received accounted for of 75.45 percent.
- 2) Internet service with 359 total complaints received, accounted for 15.88 percent.
- 3) Fixed-line service with 145 total complaints received accounted for 6.41 percent.
- 4) Radio station with 43 complaints received about 1.90 percent.
- 5) Others services with 5 complaints received account for 0.22 percent.

In 2012, there were approximately 437 complaints, which could be divided as follows:

- 1) True Visions, 265 complaints
- 2) Satellite, 61 complaints
- 3) TV, 30 complaints
- 4) Cable TV, 10 complaints
- 5) Radio station, 5 complaints
- 6) Community radio station, 64 complaints
- 7) Others, 2 complaints.

Section 2 | Key achievements of the National Broadcasting and Telecommunications Commission (NBTC)

Since it was established in October 7, 2011, the National Broadcasting and Telecommunications Commission (NBTC) has performed its regulatory role as stipulated in the legislation. According to NBTC working principles, the commission has refrained from imposing the over-regulations while regulating in conformity with the primary laws. The NBTC has also observed the fundamental right of people and their freedom to communicate.

The NBTC has strictly enforced regulations with the goals to create substantially effective result, free and fair competition environment, and to promote freedom of communication, media ethic, and the responsibility of the media toward its own professions and the society. All of these are aimed to maximize interest of the country and general public.

Key achievements

1. The completion of Master Plan for Broadcasting, Television and Telecommunications Regulations. These plans are the Spectrum Management Master Plan B.E. 2555 (2012), the Broadcasting Master Plan, and the Telecommunications Master Plan, B.E.2555-2559 (2012-2016)
2. The development of the related plans
3. The spectrum management and assignment

In 2012, the NBTC started establishing the Spectrum Management Master Plan, B.E. 2555 (2012), the Broadcasting Master Plan, B.E. 2555-2559 (2012-2016), and the Telecommunications Master Plan, B.E.2555-2559 (2012-2016). It is the NBTC's urgent mission as specified in the Article 27 of the Act on the Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Service, B.E. 2553 (2010).

Key details of the strategies of the three master plans are summarised as following:

- 1) The Spectrum Management Master Plan, B.E. 2555 (2012)
- 2) The Broadcasting Master Plan, B.E. 2555-2559 (2012-2016)
- 3) The Telecommunications Master Plan, B.E.2555-2559 (2012-2016)

1. The Spectrum Management Master Plan, B.E. 2555 (2012) and the National Frequency Allocation Table, B.E. 2555 (2012)

In 2012, the NBTC set the goals of the Spectrum Management Master Plan, B.E. 2555 (2012), aligned with the provisions of Constitution, the related law, the state policies, the international standard principles, the country's commitments with the international community, the frequency management knowledge, the trend of technologies, and the update situation of the country's spectrum use. The strategic goals of the Spectrum Management Master Plan are as follows:

- 1) To establish the mechanism in charge of the frequency management coordination between Thailand and other countries in the part of the international bodies, the committee coordinating the frequency use between the countries, the regulatory bodies, and the involved operators.
- 2) To prescribe the regulations and a specific timeframe for the spectrum return for the reallocation or for the improvement of the frequency use.
- 3) To establish the regulations and a mechanism to manage the national security spectrum.
- 4) To assign the spectrum and establish the relevant regulations regarding the spectrum use for the mitigation of the public disaster, the emergency, the natural disaster, and for the public interest.
- 5) To establish the Digital-Switch-Over Plan.
- 6) To assign the spectrum to the general public in order to provide a public service and a community service on a non-commercial basis and at a proportion of at least 20 per cent of the total spectrum bandwidth in each of the locations permitted to provide the radio and television broadcasting service.

In 2012, the NBTC prescribed the National Frequency Allocation Table, B.E. 2555 (2012). It was developed by taking into consideration the Radio Regulations of the International Telecommunication Union (ITU), the status of the country's spectrum use, and the country's agreements with the international community concerning the spectrum use.

The National Frequency Allocation Table, B.E. 2555 (2012) consists of:

- 1) ITU Frequency Allocation Table
- 2) Thailand's Frequency Allocation Table
- 3) ITU Reservation
- 4) Thailand's Reservation
- 5) Types of business and frequency usage
- 6) Definitions of the types of operations, stations, and regions

2. The Broadcasting Master Plan, B.E. 2555-2559 (2012-2016)

In 2012, the NBTC laid out the strategies of the Broadcasting and The Master Plan B.E. 2555-2559 (2012-2016), which are as follows:

1) The strategy of licensing the radio spectrum and radio and television broadcasting operations

The key principles of this strategy are to ensure that the licensing covers all types of radio and television broadcasting operations and promote the efficient spectrum use in all locations permitted to provide the radio and television broadcasting services. All of these are to create the fair licensing regime, promote the efficient spectrum use as well as supporting the spectrum utilization to provide the maximum public benefit on the non-profit-making basis.

To achieve these objectives, the NBTC issued the regulations of the spectrum use and the radio and television broadcasting operations. One example is its prescription of the regulations of the spectrum use, along with the criteria to consider the necessity of the spectrum holding by the state agencies, state enterprises, state units, or the persons assigned with the spectrum or those using the spectrum to provide radio and television broadcasting service.

The promulgation of these regulations, which is in line with the law, will enable the NBTC to formulate the database of the spectrum use for its effective spectrum assignment.

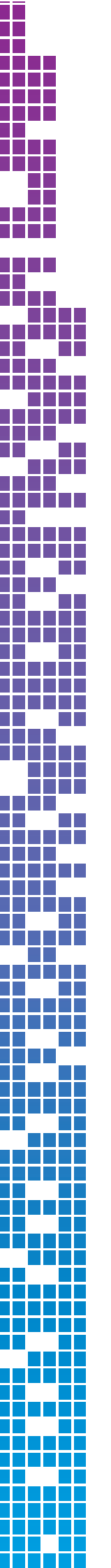
Furthermore, the NBTC specified periods within which the state spectrum holders will return their spectrum for the reallocation. The relevant regulations and procedures were also established as the guidance for them to provide to the NBTC the details of their concessions or contracts and to verify the legitimacy of their concessions or contracts.

The NBTC has set an interim measurement to supervise the industry before granting licenses, and identified the characteristics and categories of the radio and television broadcasting operations. It prescribed the regulations for granting the radio spectrum and radio and television broadcasting operation licenses as well as introducing the radio spectrum plan and the related desirable technical standards.

Moreover, the NBTC established the regulations of utilising the spectrum for the public interest on a non-commercial basis to provide a community service at the proportion of at least 20 per cent of the total spectrum bandwidth in each of the locations permitted to provide the radio and television broadcasting service. The NBTC also issued the regulations and the plans to support potential communities to become the qualified applicants of the community radio and television broadcasting licenses. The plan to support the community broadcasters' operations was also introduced, in aligned with the objectives of its fund for supporting the research and development of the radio, television, and telecommunications operations that can benefit the public.

2) The strategy of regulating the radio and television broadcasting operations

The NBTC has regulated the radio and television broadcasting operations with the goal to promote social and economic welfare and fostering the national security. Its regulations are aimed to ensure the lawful and proper use of the radio spectrum and the radio communications equipment and prevent signal interference. Its regulations were designed to promote the free competition under its fair and transparent rules. The objectives of this strategy are to promote diverse and quality content that benefit the public and prevent the commercials from violating the consumers' fundamental right and from taking advantage of consumers.



The NBTC has ensured the proper and lawful use of radio spectrum and the radio communications equipment and has prevented signal interference. Its regulations have given a top priority on promoting the free competition under the fair and transparent rules. The necessary measures were also introduced to handle the case of emergency and the natural disaster.

Over the past years the radio and television broadcasting sectors were fraught with many problems, such as the outdated regulations and the poor enforcement of the market regulations. As a result, the consumers' right was violated in many forms, such as the airing of the advertising that exceeded the prescribed time limits, or the hidden advertising messages in the TV programs.

The industry also suffered from the lack of effective mechanism to promote the media ethic. Some broadcasters, due to their large market shares, played their dominant market powers. This anti-competition situation set the high market entry barrier against the prospect entrants or obstructed the new entrants to compete with the incumbent players. This limited the opportunity of the consumers to access new and various choices of services.

Regarding the NBTC's strategy, this strategy has primarily focused on regulating the radio and television broadcasting content. It prescribed regulations and terms and conditions to oblige the license holders to allocate some time slots for airing constructive programs, or children and youth programs, and to rent their airtime the other. The NBTC has promoted the collaboration of the license holders, content producers, and the mass media professions. This created the criteria to identify the unwanted or annoying commercials or the advertising with misleading messages.

The NBTC's strategy is also focused on promoting the understanding to the general public on the proper use of the radio spectrum and radio communications devices, supporting the frequency coordination to prevent signal jam, and applying the measures to prevent the market monopoly and the unfair competition.

3) The strategy of protecting the right of radio and television broadcasting consumers

The NBTC has protected consumers from the unfair treatment of the radio and television broadcasters by prescribing the regulations to protect their right and setting the effective and easily accessible mechanism at which they can lodge complaints. The same mechanism can quickly step in to indiscriminately tackle their problems. In addition, the NBTC has promoted the consumers' awareness of their fundamental right and launched campaigns to encourage their constructive use of media tools. It has also supported the collaboration of consumers to create a strong consumer network.

The NBTC has received several complaints from consumers on the violation of their right by some radio and television broadcasters concerning some unwanted commercials, such as commercials with misleading messages, or exaggerated claims of product qualities, which have affected their physical and mental health and cost their money. One example is the drug advertising with exaggerated claim of the product properties and without certification from the Food and Drug Administration. These kinds of products cost the misled people a lot of money.

Therefore, the NBTC established the regulations and mechanism to protect consumers from the possibility of being taken advantage of by the broadcasters. It has encouraged broadcasters to provide a channel for consumers at which they can lodge the complaints. The NBTC also created the

effective tripartite mechanism to settle a dispute between the broadcasters and the complainants. All of these mechanisms are to bring confidence to the consumers that their problems will be handled in a systematical and effective way.

4) The strategy of promoting the right and freedom of communication

The NBTC has promoted the equal dissemination of information and news to all groups of peoples and prevented the broadcasters from committing any acts equivalent to the obstruction or intervention of the news presentation, or freedom of speech, or the fundamental right of people to access various news and information and content.

In this regard, the NBTC has primarily promoted the fundamental right and freedom of the general people, the disabled, the under-privileges, and the elders, to access various news and information. It has supported the fundamental freedom of speech and expression of people and the press and promoted the media literacy.

One concerned issue in the freedom to communicate is the intervention of the mass media by the broadcasters or groups of influential people. This act has impeded people's freedom to access news and information. The restriction of people's freedom to communicate eventually results in the social conflict and discriminate treatment. One example of this case is the political conflict and the problems in three Provinces in the south of Thailand. Part of the problems stems from the dissemination of information in the manner of provoking the social unrest. The NBTC is of opinion that the role of the mass media, particularly the community radio broadcasters, is to offer non-bias and plural views, instead of withholding some information for their own interest.

Thus, the NBTC's strategy in this regard is aimed at preventing any parties from dominating people's opinions. It is focused on preventing the control of the mass media, the cross media ownership, or the control of the radio and television broadcasting operations. This is to prevent the obstruction of the fundamental right and freedom of people to access information and news and to prevent any parties from exploiting the mass media as their political tool.

Furthermore, the NBTC prescribed conditions in the licenses to prohibit the license holders from limiting the fundamental right of the media professionals and the guests in the radio and television programs to express opinions. The commission has also launched many projects to empower people with the media literacy.

In addition, the NBTC's Broadcasting Master Plan has supported the broadcasters to provide equal services to all groups of people in the society. It has supported them to provide an equal opportunity to the disabled, the elders, and the under-privileged to access information and express opinions. The NBTC has also ensured that their consumers' right under the democratic regime has been well protected. One example is the prescribed provision of the sign language or the closed captions in all television programs by the broadcasters.

All of these mechanisms are the NBTC's core principles of promoting the people's right and freedom to communicate and the people's equal access of the mass media. The commission created the plans to encourage the invention of relevant technology research and development to benefit the disabled, the elders, and the under-privileged.



5) The strategy of the development of the quality broadcasting operations

This strategy focuses on the development of the media personals to have full social responsibility, the quality radio and television programs, and the quality broadcasting operations, pursuant to the Act on the Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Service, B.E. 2553 (2010).

The media has played an influential role in the learning process of people in the society in various aspects and becomes one of the most powerful tools in shaping human behaviors and attitudes. However, the media that has played a constructive role has failed to attract enough attention from the audience. On the contrary, the media, which has offered violent content or portrayed conflicts and immoral acts, has enjoyed a high rating and popularity. This results in their huge revenue accordingly. However, this kind of media has portrayed a negative image of the Thai society and has exerted an influential role on children and youth, who might be too vulnerable to distinguish what is right and wrong and are inclined to imitate what they have learnt from this kind of media.

The NBTC's strategy in this regard has encouraged the development of the quality and constructive broadcasting programs for the public benefit. The NBTC developed plans to support the development of the quality media staff and the evaluation of the broadcasting programs' quality. It has supported the programs containing constructive content, and the broadcasters, which have strictly complied with the NBTC's measures of promoting and protecting the right of the disabled, the elders, and the under-privileged.

The NBTC has evaluated the efficiency of broadcasting operations and their output as well as supporting the operations of the organizations, which have designed the ethical standard of the professions.

6) The strategy of the transition to the digital terrestrial radio and television broadcasting system

The strategy focuses on ushering the country from the analog broadcasting system to the digital one to ensure the efficient spectrum use, pursuant to the Article 27 (5) of the Act on the Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Service, B.E. 2553 (2010).

This task is aligned with the Articles 49 and 85 of the same law, which obliges the NBTC to allocate at least 20 percent of the spectrum for the public sector to operate the digital radio and television broadcasting. The NBTC has promoted the network infrastructure sharing and the provision of the equal opportunity to all households to receive the digital radio and television signals. It has supported the R&D in the digital radio and television broadcasting fields.

While the analog broadcasting technology can create six programming channels on a single spectrum band, the digital technology can generate more than six channels out of the same band. This will bring greater benefit and higher market value to the broadcasting industry. The digital technology will enable the broadcasters to create a greater channel number, which means they will have more time slots available for more advertising and will gain higher advertising revenue accordingly. At the same time, the NBTC will have more spectrum bands available to create other benefits.

Thus, the NBTC set the policy and plan to switch the country to digital terrestrial television broadcasting system within one year and to the digital radio broadcasting system within two years. As part of the policy, at least 80 percent of the households in major cities will be able to receive digital radio and television services within five years.

The NBTC has encouraged the network infrastructure sharing to provide the digital radio and television services, which will enable the license holders to achieve the efficient network coverage expansion. The NBTC is committed to finish the infrastructure sharing regulations within two years. The NBTC also set the measure and plan to support R&D in the digital radio and television broadcasting industry.

7) The strategy of improving the organization's management to become the efficient regulatory body

The NBTC is committed to continue to improve its management and administration on the principle of good governance, with professional staffs, and be recognised by all related parties. It is necessary for the NBTC to set this strategy to create the efficient organization management and with the good governance. It has continued to enhance staff's competency to enable them to keep pace with both the fast changing environment and the update information. This will enable them to competently implement the Radio and Television Broadcasting Master Plan and to effectively tackle the future problems.

The Telecommunications Master Plan, B.E. 2555-2559 (2012-2016)

In 2012, the NBTC has developed 6 strategy for the Telecommunications Master Plan, which consists of:

1) The strategy of promoting the free and fair competition

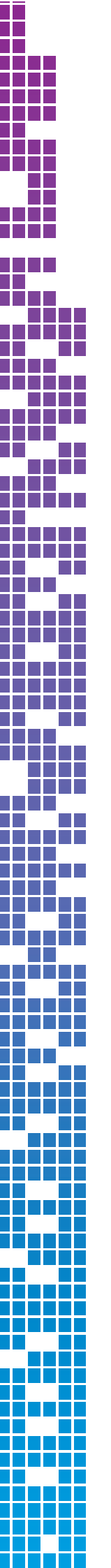
The strategy is focused on ensuring the free and fair competition on all market segments, tackling the problem of the market monopoly or the restrictive market situation at the local and the national level. The strategy is aimed at preventing the major players or the dominant players from abusing their market power. It has also prevented the collusion of the service providers to abuse or distort the market mechanism. The NBTC has aimed toward the goal of establishing the free competition landscape and the availability of the fair, reasonable service fees to the consumers.

2) The strategy of awarding the radio spectrum and the operation licenses

The strategy is focused on the license granting and the establishment of the level-playing field environment for all players, including the awarding of the technology-neutral licenses to use advanced technologies. The NBTC has coordinated with related organizations in prescribing the regulations, guidelines, and conditions of the issuance of communications satellite licenses, aiming to promote the competition to offer telecommunications and broadband services.

3) The strategy of the efficient use of telecommunications resource

The strategy is focused on promoting the efficient management of the telecommunications resource and the network infrastructure sharing by taking into account the highest benefits of the



people at the national and local levels as well as education, healthcare, culture, the national security, and other public benefits, such as the emergency or the natural disaster. The NBTC has supported the use of the communications radio devices and communications satellites at their maximum value and in conformity with the international best practices, along with the country commitments with the international community.

4) The strategy of Universal Service Obligation (USO)

The strategy is focused on applying the measures to support the telecom operators to provide basic and quality telecommunications services across the country and to the under-privileged at an affordable price as specified in the USO Plan. The NBTC has supported the telecommunications service provision for the social development and for the improvement of people's living quality. The commission has encouraged the industry to improve their potential and its provision of services and equipment to serve the under-privileged and the disabled.

5) The strategy of telecommunications consumer protection.

The strategy is focused on empowering the consumers, raising their awareness of their fundamental right regarding the telecommunications services and the benefits they will gain from several types of the services. It has promoted the technology literacy to enable them to optimize the technology use. The NBTC also made available to the consumers the channels at which they can complain about the services. Moreover, it created the measures to encourage the service providers to offer the services on ethical basis and with social responsibility.

6) The strategy of preparing the telecom sector for the full realization of Asean Economic Community (AEC) and the promotion of international cooperation.

The strategy is focused on enhancing the competitiveness of telecommunications industry and preparing for the full realization of the AEC in 2015. This goal can be achieved through the collaboration between the Thailand's telecommunications sector with those in the international community, the creation of their basic infrastructure connectivity, the harmonized regulations, the collaboration of the regulatory bodies, as well as the cooperation between Thailand and other countries on the related areas under bilateral and multilateral frameworks, based on the country's highest interest.

The three Master Plans and the National Frequency Allocation Table were published in the Government Gazette, Volume 129, special section 63 (d) dated April 4, 2012.

The development of the related plans

In addition to the three master plans, in 2012 the NBTC developed the following related broadcasting and telecommunications plans.

1. Radio Spectrum Plan
2. Telecom Numbering Plan
3. Universal Service Obligation (USO) Plan

1. Radio Spectrum Plan

In 2012, the NBTC determined the Radio Spectrum Plan, a crucial element of its regulation of the broadcasting and telecommunications operations. The following are the NBTC's Notification related to the plan.

1) The NBTC's Notification on the International Mobile Telecommunications (IMT) Spectrum Plan of 1920-1980MHz/2110-2170MHz, and 2010-2025MHz, which was published in the Government Gazette, Volume 129, special section 130, dated August 27, 2012.

2) The NBTC's Notification on the Radio Spectrum Plan for the Digital Terrestrial Television Broadcasting System, which was published in the Government Gazette, Volume 129, section 189 (d) dated December 18, 2012.

2. The Telecommunications Numbering Plan

In 2012, the NBTC developed the Telecom Numbering Plan for the number assignment and the number management. The numbering subcommittee advised the commission on developing the regulations, the procedure, and the measures, concerning the number assignment and management.

The objectives of the numbering plan are as follows:

- 1) Revising the numbering plan, in line with the update situation
- 2) Allocating the adequate numbers for the service provision
- 3) Ensuring the efficient use of the numbers by focusing on the number assignment for the public benefits and the prevention of the number scarcity
- 4) Classifying the types of telecommunications services and devices
- 5) Preparing the sufficient numbers to be used with new technologies in the future

3) The Universal Service Obligation (USO) Plan, B.E. 2555-2559 (2012-2016)

In 2012, the NBTC set the five-year Universal Service Obligation (USO) Plan, B.E. 2555-2559 (2012-2016), in compliance with the Article 27 (12) and Article 50 of the Act on the Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Service, B.E. 2553 (2010). The goals and performance indexes of the plan are as follows:

- 1) At least 75 percent of the populations nationwide can access the personal telephone service.
- 2) Providing the public telephone service between one number to two numbers per village in the non-commercially potential areas inaccessible to the service.
- 3) At least 80 percent of the populations nationwide can access broadband Internet service with connection speed of at least 2 Mbps.
- 4) Providing Internet service center to the communities and the Internet service access to educational institutes and hospitals in Tambon, featuring connection speed of at least 2 Mbps, in the area inaccessible to the service.
- 5) Providing broadband Internet service to at least 50,000 households in the area where there is commercially potential but inaccessible to the service.

6) Setting Internet service centers featuring connection speed of at least 2Mbps in at least 500 locations nationwide to specifically serve the low-income, the disabled, children, the elders, and the under-privileged.

7) Arranging the specific telecommunications services for at least 100,000 disabled to enable them to gain access of information and news.

8) Supporting the development of Internet content that can benefit general public, especially the content that can benefit the daily life of people in the regions.

9) Supporting the improvement of skills and knowledge of at least 500,000 people, especially the low-income, the disabled, children, the elders, and the under-privileged.

10) Studying the ways to assign emergency numbers and incorporate this assignment plan into the USO Plan. Complete the study in one year and finish assigning the emergency numbers within the period of the USO plan's implementation.

11) Supporting the study, R&D and pilot the projects that will benefit the implementation of the USO Plan.

The Universal Service Obligation (USO) Plan, B.E. 2555-2559 (2012-2016) was published in the Government Gazette, Volume 129, special section 87 (d), dated May 30, 2012.

In 2012, the NBTC issued the policy and the plan of the radio spectrum management and carried out the radio spectrum licensing.

Highlights on radio, television broadcasting and telecommunications spectrum management regulation

1. Radio broadcasting and television Business

(1) The spectrum management policy and planning

The NBTC's Notification on the Digital Switch Over Plan, which was published in the Government Gazette, Volume 129, special section 192 (d) dated December 21, 2012. The NBTC signed the Memorandum of Understanding with the Thai Royal Army, MCOT Plc, and the Public Relations Department on December 3, 2012 on the collaboration to conduct the trial-run of the digital terrestrial radio and television broadcasting. It opened for applications for the permits to conduct the trial since December 2012 onwards.

(2) The NBTC's Notification on the regulations and the period for the spectrum holders to submit to the NBTC the details of their spectrum use and their reasons to hold the spectrum for providing the radio and television broadcasting services.

The NBTC's Notification was published in the Government Gazette, Volume 129, special section 153 (d) dated October 8, 2012.

The NBTC's Notification requires the spectrum holders to submit the details of their spectrum use and the necessity to hold the spectrum. This serves the NBTC's plan to create the update spectrum utilization database within one year. The table below illustrates the NBTC's working process, according to the NBTC's Notification.

Table 1 Summary of Timeframe for submission on spectrum use and necessarily to hold spectrum

No.	Process	Period (days)	Period	
			Beginning date	Ending date
1	The NBTC's Notification of the regulations and a period for the spectrum holders to provide details of their spectrum use and explain the necessity to hold the spectra for providing the radio and television broadcasting services. The NBTC's Notification was published in the Government Gazette	-	Oct 8, 2012	-
2	The NBTC's Notification takes effective. The spectrum holders can provide the information as such within 90 days	90	Oct 9, 2012	Jan 7, 2013
3	The period the spectrum holders can ask for a paper form to notify their requests for the first extension of the period in the item 2/Request for a paper form prior to due date in the item 2		Oct 9, 2012	Jan 6, 2013
4	The first extension of the period in the item 2/15 days after the due date in item 2		Jan 8, 2013	Jan 22, 2013
5	The period the spectrum holders can ask for a paper form for notifying their requests for the second extension of the period in the item 2/Prior to the due date in the item 4		Jan 8, 2013	Jan 21, 2013
6	The second extension of the period in the item 2/15 days after the due date in the item 4		Jan 23, 2013	Feb 6, 2013

Source: Bureau of Business Licensing

As of December 31, 2012, 552 broadcasters submitted the information as required by the NBTC's Notification as illustrated in the Table 2.

Table 2 Number of Broadcasters, applied for the licences to provide Radio and Television Broadcasting Service in 2012

Radio stations	Television stations	Total
469	73	552

Source: Bureau of Business Licensing

The spectrum assignment and the license awarding

(1) The NBTC opened for applications for the requests to undertake the trial-run of the radio broadcasting operations, according to its NBTC's Notification on the regulations of the trial of the radio broadcasting operations, which was published in the Royal Gazette on September 19, 2012.

The application period last until January 17, 2013 (the period was extended twice, each time for additional 15 days. As a result, the application period ended on February 16, 2013). The broadcasters

were allowed to make requests for the trial-run in persons at the NBTC Office or by the postal mail. They can pick up the permits in four regions (Chiang Mai, Khon Khaen, Nakhon Si Thammarat), and Bangkok.

As of January 7, 2013, 515 permits were granted as illustrated in the Table 3.

Table 3 Number of Radio Broadcasters (Trial) in 2012

Commercial broadcasters	Community broadcasters	Public broadcasters
404	44	67

Source: Bureau of Business Licensing

(2) The awarding of the licenses to the subscription-based broadcasting service operators (Cable and Satellite TV operators). As of December 31, 2012, 134 licenses were granted as illustrated in the Table 4.

Table 4 Cable and Satellite TV operators in 2012

License type	submitted license	Number of granted license
Service	609 channels	16 channels
Network	371 operators	133 operators (134 licenses)
Facility	2 operators	-

Source: Bureau of Business Licensing

(3) The NBTC developed two NBTC's Notification of the regulations related to the granting of the licenses to operate the digital terrestrial television service. They are the draft NBTC's Notification on regulations and procedure of the licensing and the draft NBTC's Notification of the regulations and the additional procedure of granting the network broadcasting service, both are on the public hearings.

2. Telecommunications and Radiocommunications Business

1) The radio spectrum management policy and planning

(1) 37 spectrum holders submitted details of their spectrum use or spectrum holding, according to the related NBTC's Notification as illustrated in the Table 5.

Table 5 Number of Spectrum holders in 2012

Types of the entities		Number
1	Spectrum holder under the state concession or contracts	8
2	Telecommunications Business Licensee	
	2.1 Licensees (type-3 license)	5
	2.2 Licensees (type-2 licenses with their own networks)	3
	2.3 Licensees (type-2 licenses without their own network)	4
	2.4 Licensees (type-1 license)	16
3	license applicants, (not licensed)	1

Source: Bureau of Radio Spectrum Management

The NBTC Office sent written letters to the state agencies, state enterprises, and state units, which awarded the permits, concession or contracts, to confirm the legitimacy of their granting of the concessions or contracts. They were also required to submit to the NBTC as their document evidences along with such confirmation.

(2) The NBTC appointed the subcommittee preparing the management of the Digital PCN (Personal Communications Network) 1800 MHz in charge of preparing the measures to deal with the expiration of two 1800 MHz cellular concessions on September 2013. The subcommittee was tasked to draw up the measures to remedy those, who will be affected by the expirations of these two concessions. The 1800 MHz spectrum band can be used to provide Long term Evolution (LTE)-4G broadband wireless service.

2) The spectrum assignment and the licensing

(1) The NBTC held the auction of the 2.1GHz-IMT spectrum band on October 16, 2012. Nine slots of the spectrum (each set contains 2x5MHz bandwidth) were available in the auction. Each of the bidders was permitted to bid for maximum number of only three sets of the spectrum ranges. The NBTC selected the Simultaneous Multiple Round Ascending (SMRA) as the auction format.

Three bidders won the licenses in the auction.

1) The first bidder; Advanced Wireless Network proposed total of 14,625 million Baht. It selected the spectrum sets of 7 to 9. (1950-1965MHz and 2140-2155MHz)

2) The second bidder; Real Future proposed total of 13,500 million Baht. It selected the spectrum sets of 4 to 6. (1935-1950MHz and 2125-2140MHz)

3) The third bidder; the DTAC Network proposed total of 13,500 million Baht. It selected the spectrum sets of 1 to 3. (1920-1935MHz and 2110-2115MHz)

On December 7, 2012, the National Telecommunications Commission of NBTC approved the awarding of the spectrum licenses and the telecom business licenses to the three bid winners and endorsed the conditions attached to their licenses.

(2) The issuance of the permission to Advanced Info Service Plc (AIS) to use the spectrum for the trial of telecommunications service provision - the trial of wireless broadband service provision, using the BWA technology on the 2300MHz range (2306-2370MHz). It was the trial to provide the public service. The permission, which was granted on December 19, 2012, will be valid until March 18, 2013.

The key statistics in 2012 regarding the assignment of the spectrum and the awarding of the telecommunications and communications radio licenses are summarised here as:

1. The situation of the telecommunications spectrum use in 2012 as illustrated in Table 6 and Table 7.
2. The issuance of all types of communications radio licenses in 2012 as illustrated in the Chart 4.
3. The issuance of the permits to use communications radio devices and stations in 2012 as illustrated in Table 8 and the Chart 5.

The status of telecommunications spectrum use in 2012

1) The cellular operations (Table 6)

Table 6 Status of the spectrum use by telecommunications operators in 2012					
No.	Assigned spectrum		Cellular system	spectrum holders	Service Provider
	Uplink (MHz)	Downlink (MHz)			
1	479.0 - 483.5	489.0- 493.5	NMT/CDMA	TOT Plc	TOT Plc
2	824.0 - 835.0	869.0 - 880.0	CDMA/HSPA	CAT Telecom Plc	CAT Telecom Plc
3	845.0 - 846.5	890.0 - 891.5			
4	835.0 - 845.0	880.0 - 890.0	AMPS/HSPA	CAT Telecom Plc	DTAC Plc
5	846.5 - 849.0	891.5 - 894.0	AMPS/HSPA		
6	897.5 - 905.0	942.5 - 950.0	GSM/HSPA	TOT Plc	AIS Plc
7	905.0 - 915.0	950.0 - 960.0			
8	1710.0 - 1722.6	1805.0 - 1817.6	PCN 1800	CAT Telecom	TrueMove Plc
9	1722.6 - 1747.9	1817.6 - 1842.9	PCN 1800	CAT Telecom	DTAC Plc
10	1760.5 - 1785.0	1855.5 - 1880.0			
11	1747.9 - 1760.5	1842.9 -1855.5	PCN 1800	CAT Telecom	DPC
12	1885.0 - 1900.0	1965.0 - 1980.0	GSM 1900	TOT Plc	TOT Plc
	1965.0-1980.0	2155.0 - 2170.0	IMT 2000	TOT Plc	TOT Plc

Source: Bureau of Radio Spectrum Management

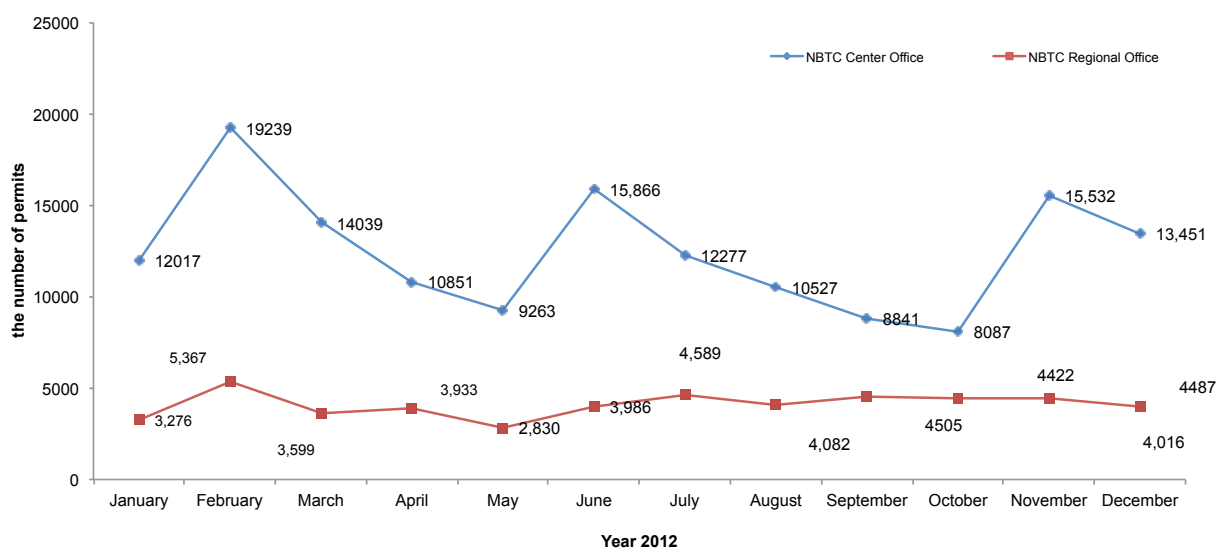
2) Thailand's satellite (Table 7)

Table 7 Status of satellite' Spectrum Usages in 2012		
Satellite	orbital slot	radio spectrum range
Thaicom-5	78.5E	3700 - 4200MHz/5925 - 6425MHz, 12.2 - 12.75GHz /14.3 - 14.5GHz
Thaicom-4 (iPSTAR)	119.5E	11.5 - 11.7GHz/13.75 - 14.0GHz, 12.2 -12.75GHz /14.0 - 14.4GHz, 10.95 - 11.2GHz/14.3 -14.5GHz, 18.3 - 18.7GHz/27 - 27.55GHz, 20-20.2GHz/28.35 - 28.6GHz, 19.7 - 20.1GHz/29.5 - 30.05GHz
Theos	Leo	2035.1625 - 2036.7625MHz, 2209.4 -2212.6MHz, 8080-8200MHz

Source: Bureau of Radio Spectrum Management

The issuance of all types of communications radio licences in 2012.

Chart 4 Number of the issuance for Radiocommunications in 2012



Source: Bureau of Radio Communications Management

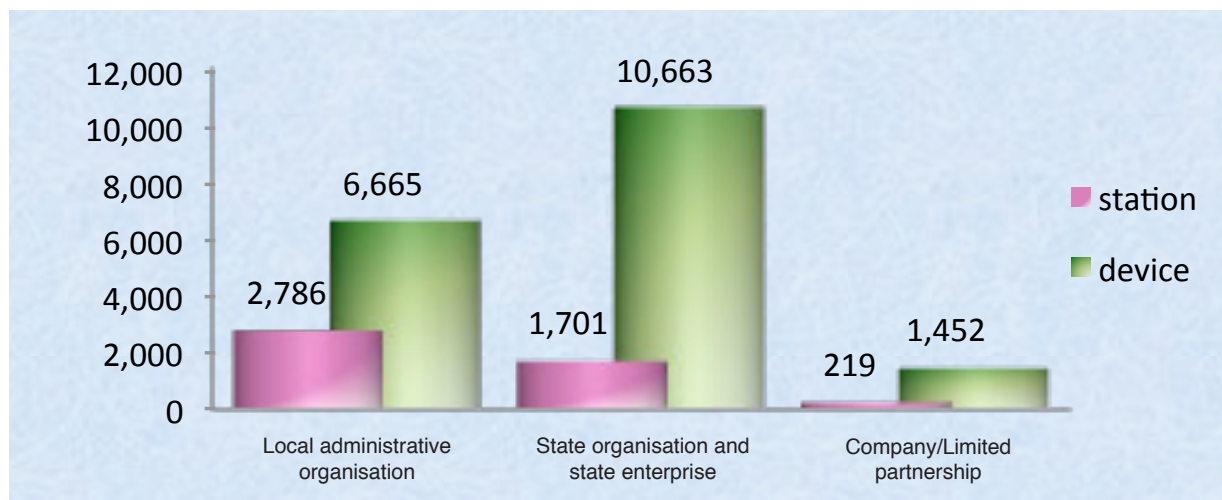
The issuance of the permits to use radiocommunications devices and stations.

Table 8 Number of Radiocommunications services and station Allocation in 2012

Entity	Number	
	Station	Device
Local administrative organisation	2,786	6,665
State organisation and state enterprise	1,701	10,663
Company/Limited partnership	219	1,452
Total	4,706 stations	18,780 devices

Source: Bureau of Radiocommunications Management

Chart 5 Number of Radiocommunications devices and stations Allocation in 2012



Source: Bureau of Radiocommunications Management

3) The Development and revision of the related regulations.

In addition to the assignment of the radio spectrum and the radio broadcasting and the awarding of the telecommunications business licenses, in 2012 the NBTC assigned the Office of NBTC to form up the mechanism and revise the regulations related to its the allocation of the radio spectrum and the issuance of radio broadcasting and telecommunications business licenses.

(1) The revision of the NBTC's Notification on the Automatic Licensing of the radiocommunications operations. The revised NBTC's Notification is on the process to be published in the Royal Gazette.

(2) The revision of the draft of the NBTC's Notification on the guideline of assigning the radio spectrum for telecommunications and communications radio operations for the national security, B.E. ... The NBTC's board is screening the revised draft.

(3) Developing the draft of the NBTC's Notification on the regulations and procedure of applying for the spectrum for the communications radio operations, B.E. ...

(4) Developing the draft of the NBTC's Notification on Amateur Radio Operations, B.E....

Section 3 | Regulation on Radio and Television Broadcasting

Key achievements of the National Broadcasting Commission of NBTC

In 2012, the National Broadcasting Commission of NBTC has achieved several performances, which are crucial to its effective and transparent enforcement of the regulations on the broadcasting sector in the manner that creates the fair competition and provides the equal accessibility of the radio and television broadcasting spectra to the general people. The key achievements are as follows:

1. The awarding of the radio spectrum and the radio and television broadcasting operation licenses
2. The regulations of the radio and television broadcasting operations
3. The consumer protection
4. The promotion of right and freedom for communications
5. The improvement of the quality of the radio and television broadcasting operations
6. The industry's transition from the analog radio and television broadcasting system to the digital terrestrial broadcasting system
7. The improvement of the administrative management efficiency

The awarding of the radio spectrum and the radio and television broadcasting licenses.

In 2012, the NBTC pursued the policies in the Master Plan regarding the issuance of the radio spectra and the radio and television broadcasting licenses.

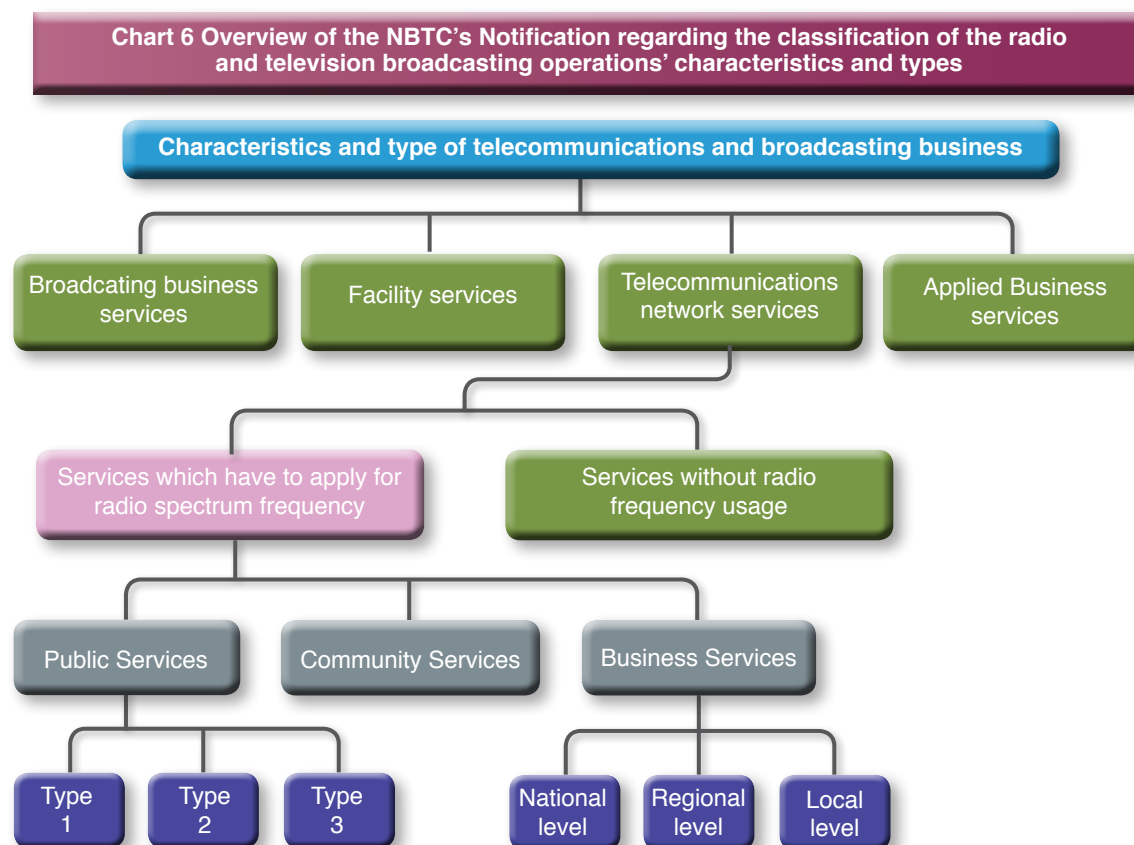
1. Identifying characteristics and types of the radio and television broadcasting operations as a basis for its industry development and the promotion of the free and fair competition.

It promulgated the NBTC's Notification of the characteristics and types of the radio and television broadcasting operations, which was published in the Government Gazette on July 20, 2012.

These characteristics and types of the radio and television businesses formulated a framework for its consideration to award the operation licenses and its related activities. The NBTC's Notification specifies four characteristics and types of the radio and television operations as follows:

- 1) The radio and television broadcasting services
- 2) The radio and television broadcasting network services
- 3) The radio and television broadcasting facility services
- 4) The content application

This classification of the radio and television broadcasting operations is in aligned with the international standard and with the changing industry structure, which is gearing up toward the digital era. It also enables the general public to access to quality and various information and news.



2. The preparation of the radio broadcasters to enter the licensing regime pursuant to the Radio and Television Broadcasting Act, B.E. 2551 (2008) (The trial of the broadcasting operations).

1) The NBTC's Notification

(1) The NBTC's Notification on the regulations of the trial-run of the radio broadcasting, B.E. 2555 (2012), which was published in the Royal Gazette, dated September 19, 2012. The objective of the regulations is to prepare the broadcasters' transit to the licensing regime as specified by the Radio and Television Broadcasting Act, B.E. 2551 (2008).

The NBTC's Notification has governed the broadcasting quality in term of techniques and content, promoted the equal accessibility of the service by the people, and ensured the economic and social welfare, based on the public highest interest in regard of educational, cultural, and national security aspects, and other public benefits. The regulations have promoted the participation of people, state, and business sectors in the mass media operations.

The NBTC's Notification defines the three types of the trial broadcasting operations, which are the public operations, the community operations, and the commercial operations. It provides details of a permit paper and the procedure of applications, the qualifications of the eligible applicant, programming, programme proportion, content, duties and responsibilities of the broadcasters during the trial-run process, and technical standards in each of the three types of the broadcasting operations. It specifies right and duties of the broadcasters and the process of supervising the trial broadcasting.

(2) The NBTC's Notification on the regulations of the testing of the technical standard of the radio transmitters for the trial radio broadcasting, which was published in the Government Gazette on October 11, 2012. The objective is to ensure the effective spectrum use and without the signal intervention, including the compliance of technical standard of transmitters with the standard specified by the NBTC.

The regulations identify the labs eligible to conduct the testing and to certify the testing outcome. Besides the Office of NBTC, the eligible labs must be the ones be registered and certified by the Office of NBTC. The broadcasters obtaining the NBTC permits to test the broadcasting operations is required to have their transmitters tested by these labs. The NBTC determined the service fee of the testing of not exceeding 5,000 Baht per transmitter. The broadcasters can request the labs to perform the testing and issue a certification at not exceeding two times per transmitter and the labs must not impose the extra cost on these broadcasters besides the testing service fee.

2) The awarding of the permits for the trial-run of radio broadcasting.

The NBTC opened for the broadcasters to apply for the permits to conduct the trial-run of the radio broadcasting operations. The details of the issued permits on January 7, 2013 are illustrated in the Table 9.

Table 9 Issuance of Radio Broadcasters (Trial) in 2012

Type	Number of permits
Commercial broadcaster	404
Public broadcaster	67
Community broadcaster	44
Total	515

Source: Bureau of Licensing

3. The awarding of the operation licences

1) The NBTC's Notification

In 2012, the Office of NBTC issued three NBTC's Notification s on the regulations and procedure of granting the licenses to operate the radio and television broadcasting.

(1) The NBTC's Notification on the regulations and procedure of granting the licenses to provide the radio and television broadcasting service, B.E. 2555 (2012), which was published in the Government Gazette on October 16, 2012.

(2) The NBTC's Notification on the regulations and procedure of granting the licenses to provide the radio and television broadcasting network service, B.E. 2555 (2012), which was published in the Government Gazette on October 16, 2012.

(3) The NBTC's Notification on the regulations and procedure of granting the licenses to provide the radio and television broadcasting facility service, B.E. 2555 (2012), which was published in the Government Gazette on October 16, 2012.

The promulgation of the regulations and procedure as such is to announce in advance the qualifications of an eligible license applicant, the license application procedure, the licensing regulations, the required document and evidence for the application, the criteria in considering the license issuance and the period of consideration of the license issuance, the scope of the licensing, right and duties of the license holders, including the related conditions necessary for the operations.

2) The Awarding of the operation licenses.

The NBTC allowed the television and cable TV operators and satellite operators to apply for the operation licenses. The details of the licensing on December 31, 2012 are illustrated in the Table 10.

Table 10 Awarding of Television Broadcasting Licenses in 2012

Type	Number of license
Radio or television broadcasting service	16
Broadcasting network service for cable and satellite TV operations	134
Total	150

Source: Bureau of Licensing

4. The regulation of the annual license fee of the radio and television broadcasting operations to ensure fair treatment.

1) The NBTC issued the NBTC's Notification on License Fee for Radio and Television Broadcasting license Business, B.E. 2555 (2012), which was published in the Royal Gazette on November 12, 2102. The NBTC's Notification set the license application fee and the annual fee of each of the license types on the cost-based basis.

The NBTC determined the annual licence fee on the basis of its regulatory and administrative expense. The fees were fair established in the manner that they will not be burdensome to the license holders or affect their competitiveness. The fees encourage the market entry of the small players and enable them to compete on the same level playing field with the other. The NBTC set the incremental fees as illustrated in the Table 11.

Table 11 Annual license fee for Radio and Television Broadcasting Operations License (Baht)

Revenue	Fee
0-5 million	1.5 percent
Exceeding 5 million	2.0 percent

Source: Bureau of Fee and Rate of Service Charge in Radio and Television Broadcasting

The NBTC's Notification on the annual license fee for operating radio and television broadcasting business, B.E. 2555 (2012) allows the license holders to pay the fee once a year in order to help them save document related cost. They have to take into calculation the revenue in each of their fiscal years to calculate their annual fee.

2) The NBTC developed the draft regulations on the reduction or waive of the annual license fee for the broadcasting license holders. They can apply for the reduction or waive of the annual license fee in every year, according to the prescribed rates, regulations, and procedure. The introduction of the fee reduction and waive is in line with the Radio Broadcasting Act, B.E. 2551 (2008). The Act authorizes the NBTC to consider lowering or waiving the annual license fee for the license holders, which can demonstrate that their programs contain news and information that benefit the public in the proportion higher than the prescribed proportion. The regulations of the reduction or the waive of the annual license fee were already published in the Volume 130 of the Royal Gazette, special section 27 (d) dated February 27, 2013.

5. The permits to use the spectrum for the trial run or for the interim operations of the radio and television broadcasting operations.

The NBTC issued the NBTC's Notification on the regulations to permit the spectrum use in the trial run of the radio and television broadcasting operations or in the interim operations, which were published in the Royal Gazette on September 3, 2012. The regulations are aimed at supporting the development of the spectrum and the radio and television broadcasting operations.

The provisions of the Act on the Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Service and the Radio Broadcasting Act B.E.2553(2010) state that the NBTC might allow the use of spectrum for the trial-run or the provisional operations of the radio and television broadcasting operations, in conformity with the Spectrum Management Master Plan, the National Frequency Allocation Table, the Broadcasting Master Plan, and also the prescribed regulations and procedure in this NBTC's Notification.

The NBTC's Notification defines the term "trial" as the act of testing the broadcasting network and the radio and television broadcasting systems with the objective to employ the knowledge gained from the testing to benefit and improve their use of radio and television broadcasting spectra. The meaning of the trial also covers the scientific and engineering R&D.

The term "trial" also covers any acts regarding the examination of the ability to use of the radio and television broadcasting spectrum and the provision of the radio and television broadcasting service.

6. The regulation of the spectrum use and the examination of the legitimacy of the granting of the concessions or contracts.

The NBTC issued three NBTC's Notification to ensure the efficient spectrum use and the sufficient spectrum availability in the future.

1) The NBTC's Notification on the regulations and periods the spectrum holders will provide information of their spectrum use to the NBTC and explains their necessity to hold the spectrum for

providing the radio and television broadcasting service. The NBTC's Notification was published in the Government Gazette on October 8, 2012.

The NBTC's Notification makes it compulsory for the spectrum holders to submit details of their spectrum use and the necessity to hold the spectra to the NBTC as specified by the NBTC regulations and timeframe.

The state agencies, which granted the contracts or concessions to other parties to operate the radio and television broadcasting on their behalf, are required to provide details of these concessions or contracts, including the details of the terms and the revenue sharing under these concessions or contracts to the NBTC as specified in its procedure and regulations.

The NBTC's Notification requires them to submit the details and evidence as such to the NBTC within 90 days after the NBTC's Notification comes into effect. The last day they can submit the details and evidence is on January 7, 2013. They can request for the extension of the period for two times, each for additional 15 days, from the last day of the original period.

Table 12 Status of Spectrum Holder' Details on spectrum use and necessity to hold spectrum

No.	Agency	Procedure				
		Submission within the prescribed 90 days (the last submission date is on Jan 7, 2013)	Request for the first extension period (the last submission date is on Jan 6, 2013)	Submission within the first extension period (the last submission date is on Jan 22, 2013)	Request for the second extension period (the last submission date is on Jan 21, 2013)	Submission within the second extension period (last submission date is on Feb 6, 2013)
1	Thai Public Broadcasting Service	Dec 14, 2012				
2	Royal Thai Army Radio and Television Station	Dec 12, 2012				
3	Thammasat University	Dec 20, 2012				
4	Foreign Ministry	Dec 25, 2012				
5	Department of Agricultural Extension	Dec 26, 2012				
6	Defence Ministry's Permanent Secretary Office	Jan 3, 2013				
7	MCOT Plc	Jan 4, 2013				
8	The Education Ministry	Jan 4, 2013				

No.	Agency	Procedure				
		Submission within the prescribed 90 days (the last submission date is on Jan 7, 2013)	Request for the first extension period (the last submission date is on Jan 6, 2013)	Submission within the first extension period (the last submission date is on Jan 22, 2013)	Request for the second extension period (the last submission date is on Jan 21, 2013)	Submission within the second extension period (last submission date is on Feb 6, 2013)
9	Bangkok Metropolitan Administration	Jan 4, 2013				
10	The Secretariat of the House of Representatives	Jan 7, 2013				
11	Chulalongkorn University	Jan 7, 2013				
12	Bureau of the Royal House Hold		Jan 7, 2013			
13	Royal Thai Air Force	Dec 24, 2012	Jan 17, 2013			
14	The Public Relations Department			Dec 28, 2012	Jan 18, 2013	
15	Rajamangala University of Technology Thanyaburi		Jan 3, 2013	Jan 21, 2013		
16	Marine Department		Jan 3, 2013	Jan 22, 2013		
17	Royal Thai Army			Jan 4, 2013	Jan 7, 2013	
18	The Fishery Department			Jan 4, 2013	Jan 17, 2013	
19	Kasetsart University		Dec 13, 2012	Jan 4, 2013	Jan 14, 2013	Feb 4, 2013
20	Royal Thai Police		Dec 17, 2012		Jan 7, 2013	Jan 31, 2013
21	Khon Kaen University		Jan 2, 2013		Jan 21, 2013	Jan 29, 2013
22	Maharakham University		Jan 3, 2013		Jan 21, 2013	Feb 4, 2013
23	Thai Meteorological Department		Jan 4, 2013		Jan 17, 2013	Feb 5, 2013
24	Chiang Mai University		Jan 4, 2013		Jan 18, 2013	Feb 5, 2013

No.	Agency	Procedure				
		Submission within the prescribed 90 days (the last submission date is on Jan 7, 2013)	Request for the first extension period (the last submission date is on Jan 6, 2013)	Submission within the first extension period (the last submission date is on Jan 22, 2013)	Request for the second extension period (the last submission date is on Jan 21, 2013)	Submission within the second extension period (last submission date is on Feb 6, 2013)
25	Prince of Songkla University		Jan 4, 2013		Jan 18, 2013	Feb 5, 2013
26	Naresuan University		Jan 4, 2013		Jan 21, 2013	Feb 5, 2013
27	Royal Thai Army		Jan 4, 2013		Jan 15, 2013	Feb 6, 2013
28	Royal Thai Navy		Dec 19, 2012		Jan 9, 2013	Feb 6, 2013
29	Por Nor 1 RadioStation		Jan 2, 2013		Jan 21, 2013	Feb 6, 2013

Source: Bureau of Broadcasting Licensing
Note: The information as of February 7, 2013

2) The NBTC developed the regulations on criteria for considering the necessity of the spectrum holding and the periods of the return of the radio and television broadcasting spectra, B.E. 2556 (2013), which was published in the Government Gazette, Volume 130, special section 27 (d) dated February 27, 2013.

The objective of the regulations is to examine the necessity of the spectrum holding and to specify the periods within which the spectrum holders will return their radio and television broadcasting spectrum for the NBTC's reallocation or for its improvement of the spectrum use as specified in the Spectrum Management Master Plan. The regulations determined the NBTC's working timeframe, procedure, and process in relations to the regulations and periods of informing the NBTC the spectrum use and necessity of holding the spectrum for providing the radio and television broadcasting services.

3) The NBTC regulations of examining the legitimacy of the awarding of the state radio and television broadcasting concessions or contracts, B.E 2555 (2012). The regulations are a guideline for the Office of NBTC, the subcommittee, and the broadcasting committee, to examine the legitimacy of these concessions and contracts. The regulations took effect on November 9, 2012. As part of the regulations, after the Office of NBTC were informed by the state agencies their details of the spectrum and the necessity to hold the spectrum, including the details for their concessions or contracts. The Office of NBTC has to conclude the results and present them to the subcommittee within 30 days after receiving these details. The state agencies can request for the extension of the period to inform the NBTC for such required details for two times, each for additional 15 days. The Office of NBTC is also required to specify the periods of its giving of opinions on these details, its examination of the legitimacy of the concessions or contracts, or the period it will ask the state agencies to provide more information.

7. The Spectrum Valuation

The Office of NBTC has developed into the academic collaboration with Chulalongkorn University to seek consultancy for the valuation of the radio and television broadcasting spectra. The collaboration is aimed to ensure that the NBTC determines the spectrum prices that genuinely reflect the technical and economic value of the spectrum and that the valuation was conducted transparently and in line with the international standard practice. This reflects its intention to bring the maximum benefits to the industry and the consumers.

As part of the valuation, the NBTC conducted the comparative studies of the international experiences of the spectrum valuation in order to find out the valuation method most suitable to the Thailand's environment. The Office of NBTC signed the Memorandum of Understanding with Chulalongkorn University on the matter on August 20, 2012.

Radio, Television and Broadcasting Operation Regulation

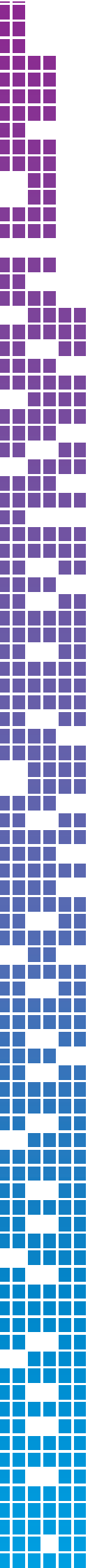
To have regulation on broadcasting for benefits in terms of the economics, society and security, frequency and radio telecommunications were perfectly utilized without any disturbances. Free competition was done under conditions with transparency and fairness. Performance in 2012 was detailed below.

1. Build up operational standards in quality and beneficial contents for the general public, regarding human rights and variety.

The NBTC's Notification was drafted on principles for the radio and television broadcasting schedule for proper programs in each period. This was not only for the benefits of consumers and protection of youths from programs with inappropriate contents, but also for those who would run operations to know types and sizes of programs, program schedule's screening process, necessary document or information for the process and its period for radio and television broadcasting beforehand. Program appropriateness was arranged. In 2012, such drafted notification went through a public hearing. Later, the NBTC's Notification on principles for the radio and television broadcasting schedule, B.E. 2012 (2556) was announced in the Royal Gazette, Volume 130, Special Section 27 (d) on February 27, 2013.

2. Support and promote radio and television broadcasting with efficiency and optimal benefits.

The NBTC's Notification was drafted on principles for time sharing for others to run a program, B.E. 2012 (2555). The move aimed at promoting and supporting efficient radio and television broadcasting with optimal benefit. This was in regard to promotion of freedom in people's various communications and news access with equality and media literacy. Besides, liberal competition in radio and television broadcasting was supervised with fair principles, a variety of proper quality programs for target groups. Being protected, consumers received quality services through time sharing, including rent, time sharing for joint program production or time sharing for similar programs for radio and television broadcasting.

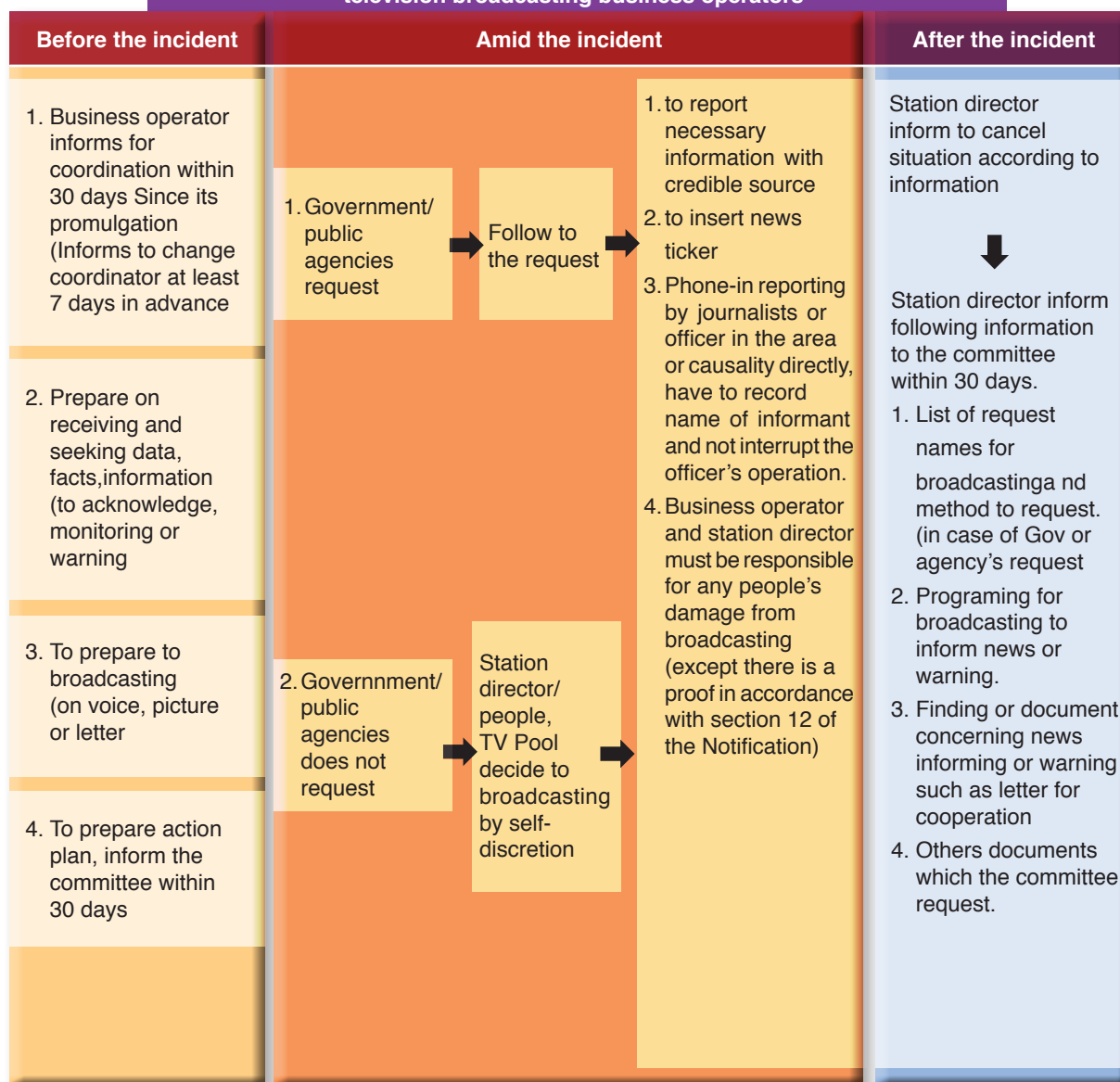


3. Establishment of guarantee for people to gain necessary information access in a case of disaster or emergency so that they can make preparation in time.

It could be said that radio and television broadcasting business operations are essential for dissemination and presentation of information necessary as a preparation of prevention, solution and relief in a case of disasters or emergency that occurs or may arise. Thus, procedures and methods are set for radio and television broadcasting business operators to operate business in a systematic way if a disaster or the emergency occurs. There is the NTBC Notification on principles and work procedures of radio and television broadcasting business operators in a case of a disaster or the emergency. The notification is made in the Royal Gazette, No. 129, special edition 149 (d) on October 1, 2012. This notification's principles set a guideline for operations of radio and television broadcasting business operators if a disaster or an emergency occurs. It targets people, who suffer from a disaster or an emergency, to gain complete and accurate information necessary for living. The Disaster's Notification or warning will be made with necessary information from reliable sources prudently and cautiously, not causing panic. Informative opinion is prohibited with an exception for comments from state officials or academics with knowledge and expertise in such incident.

Such notification consists of three parts of principles and work procedures for radio and television broadcasting business operators in a case of any disaster or any emergency: 1) preparation of operators (before the incident); 2) implementation of operators in a case of a disaster or an emergency (amid the incident); and 3) execution after a disaster or an emergency (after the incident), as depicted in Chart 7. All operators are required to draw out their action plans in a case of a disaster or an emergency. The plans shall be submitted to National Broadcasting Commission of NBTC for acknowledgement within 30 days from the effective date of the announcement. The operators are required to follow guidelines set in the announcement when a disaster or an emergency takes place. Their execution shall strictly follow the action plans of operators submitted to the National Broadcasting Commission of NBTC.

Chart 7 Action Plans for any disaster or any emergency submitted by television broadcasting business operators



4. NBTC Officials' Regulation Implementaion

To make the regulation of officials with certain work procedures and framework completed, the National Broadcasting Commission executes the following steps.

1) Introduce the NBTC's Notification on establishment of procedures and period for consideration of request or petition for the radio and television broadcasting business. The notification was made on the Royal Gazette on November 9, 2012. This is to have petitioners to perceive procedures and period of implementation and work process of NBTC and its office to be executed completely with certain implementation schedule. This is to have guidelines for operations of radio and television broadcasting business and to have a complete process for considering a request or a petition for radio and television broadcasting business with speed, efficiency and traceability.

2) Prepare the NBTC's Notification on principles of officials' duty execution following Section 53 of the the Radio and Television Broadcasting Business Act B.E.2551.(2008) Later, the notification was made on the Royal Gazette, Volume 130, Special Section 11(d) dated January 25, 2013. This is to have assigned work implementation of regulation officials in radio and television broadcasting business to be complete with speed, efficiency, certain procedures and framework, and traceability.

3) Set up the NBTC's Notification on principles and methods to gather facts about wrongdoings, that contain administrative punishment, in radio and television broadcasting business. Later, it was announced in the Royal Gazette, Volume 130, Special Section 11(d) dated January 25, 2013. Its aim is to have the administrative punishment to be complete with speed and efficiency. Work procedure and operational framework are certain. In a case that a petitioner presents or a suspicious cause exists for a licensed person or any other person makes wrongdoings with administrative punishment as stipulated in the the Radio and Television Broadcasting Business Act B.E.2551 (2008) the Office of NBTC shall gather factual information to propose the administrative punishment. The NBTC's Notification of a petition, a petition result or administrative punishment's ruling, and appointment or a call for a petitioner or that who receives a petition to make clarification to the NBTC Office by written document. Following the administrative punishment's ruling, the NBTC Office shall notify such ruling by written document.

5. Establishment of people network (audience) to help monitoring, inspecting and keeping a watch on dangerous and improper media.

People network (audience) project is established in the radio and television broadcasting business. This is to build up networks that contain knowledge and understanding, see through media's tricks for monitoring and inspection, and help follow, examine and keep a close watch on dangerous and improper media in the radio and television broadcasting business in areas across the nation. The network is target to have 250 persons in the South and 450 persons in the North East. The 2012 operations were depicted in Table 13.

Table 13 Training Course for Creation of Networking (audience) in radio and television broadcasting businesses in 2012

No.	Date	Area	Participating Province
1	24-25 November 2012	SuratThani	Chumporn, SuratThani, Ranong
2	15-16 December 2012	Krabi	Pang Nga, Phuket, Krabi, Trang, Satoon
3	18-19 December 2012	Songkhla	Nakhon Si Thammarat, Pattalung, Songkhla
4	22-23 December 2012	UdonThani	Nongkhai, UdonThani, NongbuaLampoo, KhonKaen, Karasin, MahaSarakharn, Roi Et, Leoy, Chaiyaphum
5	24-25 December 2012	NakhonPanom	Buengkarn, NakhonPanom, SakhonNakorn, Mukdaharn, Amnat Charoen
6	26-27 December 2012	UbonRatchathani	UbonRatchathani, Yasothorn, Si Saket, Surin, Buriram, NakhonRatchsima

Source: Group for radio and television broadcasting businesses

6. Promotion and protection for people to gain information access of radio and television broadcasting business operators' services via standardized signal receivers.

To have people to receive services from quality and standard signal receivers, the NBTC's Notification on principles and methods to permit production, imports, distribution or stock for distribution or installation of receivers, and tools or equipment that are able to receive or convert signals for programs of membership radio and television broadcasting business, 2012 was made in the Royal Gazette on November 9, 2012. This aims at allowing those, who need to produce, import, distribute or have in stock for distribute or install such receivers, tools or equipment, to acknowledge the principles and method to ask for permission about such receivers, tools or equipment. Those who need to produce, import, distribute or have in stock for distribute or install such receivers, tools or equipment, to submit a request for permission in a form required in the announcement. The applicant is required to indicate a certain type of permission. Details are notified in the form with approval procedures and regulation.

7. Regulation of Radio and Television Broadcasting Businesses in terms of Legal Enforcement

1) Determination of principles concerning officials who issue licenses, and legal enforcement

In 2012, the following principles were introduced for employees who issue licenses, and legal enforcement.

(1) The NBTC's Notification was made on appointment and assignment of officials to perform duties concerning regulation of radio and television broadcasting businesses on behalf of the National Broadcasting and Telecommunication Commission (NBTC). The announcement was introduced in the Royal Gazette on May 14, 2012.

(2) The NBTC's Notification was made on appointment and assignment of officials to perform additional duties concerning regulation of radio and television broadcasting businesses on behalf of the National Broadcasting and Telecommunication Commission (NBTC). The announcement was introduced in the Royal Gazette on October 8, 2012.

(3) The NBTC's Notification was made on appointment of additional officials who issue licenses following the Radio Communications Act, B.E. 2498. (1955) The announcement was introduced in the Royal Gazette on May 14, 2012.

(4) The NBTC's Notification was made on appointment of additional officials who issue licenses following the Radio Communications Act, B.E. 2498. (1955) The announcement was introduced in the Royal Gazette on October 8, 2012.

2) Regulation of radio and television broadcasting businesses on legal use of frequency and radio communications equipment with no disturbance. The following two parts are described below.

(1) Radio Broadcasting

(1.1) Charges on 392 stations were sent to the Royal Thai Police to file cases following the Radio Communications Act, B.E. 2498.(1955)

(1.2) Charges on 326 stations were sent to the Royal Thai Police to file cases following the Radio Communications Act, B.E. 2498 (1955) and the Radio and Television Broadcasting Business Act B.E.2551. (2008)

(1.3) Six stations were under inspection searches and arrest of wrongdoers.

(2) Television Broadcasting

Charges on 10 stations were sent to the Royal Thai Police to file cases following the Radio Communications Act, B.E. 2498 (1955) and the Radio and Television Broadcasting Business Act B.E.2551 (2008), and there were inspection searches and arrest of wrongdoers.

8. Promotion of aggregation of licensees, program producers and mass media operators concerning radio and television broadcasting businesses.

In 2012, the NBTC's Notification was prepared on aggregation of licensees, program producers and mass media operators concerning radio and television broadcasting businesses for self regulation. Its purpose is to bring about the aggregation of licensees, program producers and mass media operators concerning radio and television broadcasting businesses in any forms, and set the ethical standard for occupations or professions and self regulation. The drafted notification is to have the Office of NBTC to promote, encourage and suggest licensees, program producers and mass media operators concerning radio and television broadcasting businesses or any organizations to aggregate themselves, prepare their ethical standards and establish a committee to supervise the ethics.

9. Self regulation

Legally, self regulation for radio and television broadcasting businesses aims to promote international standard regulation under federation of professions and aggregation for self regulation, not NBTC's controlling power. When all of media are granted professional licenses, they are required to gather as organizations in any forms as to establish ethical standards of occupations or professions. Therefore, guidelines are established and mechanisms are developed to encourage media's self regulation as described below.

1) Set guidelines under a common draft as a guideline to maintain conduct and ethics, and a guideline for self regulation of professional organizations concerning radio and television broadcasting businesses. Four parts constitute such guidelines.

Four parts constitute such guideline. They are major principles of radio and television broadcasting professions, principles of ethics, principles of independence, principles of human rights, principles of equality, principles of variety, principles of accuracy and integrity, and principles of non-bias.

2) General principles and guidelines for self organizations are set to mutually build up accepted standards for radio and television broadcasting business operators. They consist of these followings:

(2.1) The practitioners in radio and television broadcasting businesses shall apply such

guidelines for self implementation.

(2.2) Professional organizations on mass media at any levels, including federation of professions, institutes, associations, clubs or groups of performers concerning radio and television broadcasting businesses have the duties and responsibilities to implement self-regulation. Organizations' members are able to take these as the guidelines to improve themselves for work efficiency, program effectiveness and dissemination.

(2.3) Major principles and ethics of radio and television broadcasting business operators shall regard protection of people to be informed news and public information and consumers' protection concerning radio and television broadcasting businesses. Protection of occupants and professional' rights and freedom is included.

(2.4) Radio and television broadcasting business operators should have the freedom to perform their duties with reasonable accuracy, balance and fairness, responsibility of public benefits, and integrity to professions. They should also perform themselves under the Constitution and other related laws.

(2.5) Radio and television broadcasting business operators shall adhere to the guidelines set to maintain standards of conduct and ethics, and mission for radio and television broadcasting businesses, based on entertainment and informativeness for support of quality society and morality.

(2.6) Radio and television broadcasting business operators shall abstain from any acts that may cause damages to professional organizations, licensees, operators or mass-media professionals in radio and television broadcasting businesses

(3) Code of conduct and ethics of radio and television broadcasting business operators

(3.1) Aware of rights of privacy, rights of family, reputation, personal information, interpersonal communications and private living.

(3.2) Aware of human dignity without discrimination in any issues such as national origins, races, skin colors, languages, genders, ages, disabilities, physical status or health, personal status, economic or social status, religious belief, education or political views.

(3.3) Aware of impact that may arise to consumers in receiving factual information and claims for solutions to damages.

(3.4) Respect others in terms of rights and intellectual properties.

(3.5) Promote maintenance of national arts, culture, tradition and custom for creation of society, values and local wisdom.

(3.6) Aware of presentation of complete information with accuracy, integrity, balance, appropriateness and fairness.

(3.7) Open public space for versatile information for all sections in the society.

(4) Guidelines for self regulation of radio and television broadcasting business operators set a framework for a professional organization to screen and select a conduct controlling committee, which regulates member' occupations or professions. Procedures and methods are set to accept complaints or petitions from members and consumers.

2) Meetings are held to provide understanding and exchange ideas with associations/professional federations of radio and television broadcasting businesses, operators and media consumers. Such issues involve NBTC's regulation role as to be used for drafting guidelines for self regulation. Tripartite is set for self regulation in radio and television broadcasting businesses. In 2012, six meetings were held as detailed in Table 14.

Table 14 Tripartite panel discussion on self regulation in radio and television broadcasting businesses in 2012

No.	Date	Place	Topic
1	31 May 2012	Siam City Hotel	Exchange of experience and ideas for self regulation in Thailand and comparison with the international standard
2	11 July 2012	Siam City Hotel	Ethics for production and broadcast of game shows and reality shows
3	9 August 2012	Anoma Hotel	Which types of TV series do the Thai society want to watch?
4	11 September 2012	Centara Grand Hyatt Hotel, Central Department Store - Ladphrao	Media ethics with advertisement in radio and television broadcasting businesses
5	11 October 2012	The Sukosol Hotel	Media ethics with news reporting in a disaster
6	28 November 2012	Amari Watergate Hotel	Media ethics with Thailand's political developments

Source: Bureau of Promotion of Competition and Self Regulation

3) Meetings were organized to discuss on free TV stations' practices for self regulation. Small meetings were held with executives to build up understanding and monitor progress for preparation of codes of conduct/ethics in work practices for each organization. Problems, obstacles and complaints concerning professional conducts were also acknowledged as shown in Table 15.

Table 15 Discussion on guidelines for self regulation of free TV stations in 2012

Meeting	Date
Executives of National Broadcasting Services of Thailand (Channel 11)	26 September 2012
Executives of Thai TV3	12 October 2012
Executives of MCOT Plc.	29 October 2012
Executives of Thai PBS	7 December 2012
Executives of Royal Thai Army Radio and Television (Channel 5)	13 December 2012
Executives of Bangkok Broadcasting & TV (BBTV Channel 7)	13 December 2012

Source: Bureau of Promotion of Competition and Self Regulation

10. Establishment of guidelines and principles for liberal competition with transparent and fair rules.

1) Draft the principles on non-exclusive program as to prevent operators to exercise monopolistic rights or deprive others from broadcasting major sports events. A comparative study was conducted for regulation on competition in radio and television broadcasting businesses abroad with similar environment and constraints. This was seen as good examples for regulation on competition.

2) A workshop on “Regulation on Competition in Radio and television Broadcasting Businesses: A Case Study of Cross-Carriage Rule” was held at the Office of NBTC on August 24, 2012. Experienced speakers with knowledge and expertise in regulation and problem solving of overseas television broadcasting businesses were invited to discuss for a subcommittee on assisting work in radio and television broadcasting businesses and NBTC staff. This aimed to apply such knowledge and experience for those related to regulation.

11.Training on Regulation

This intended to provide more knowledge and understanding in legal issues and principles related to radio and television broadcasting businesses. Examples were laws on an organization for allocation of frequency and regulation on radio and television broadcasting, and telecommunications businesses, laws on operations of radio and television broadcasting businesses and laws on radio communications business. Audience included those who desired to operate radio and television broadcasting businesses, existing radio and television broadcasting business operators, local state agencies, related stakeholders and people. Such principles could optimize efficiency of regulation in radio and television broadcasting businesses through training for buildup of knowledge and understanding about laws relevant to radio and television broadcasting businesses. Nine classes of training were held with 160 trainees each.

Consumer Protection in Radio and Television Broadcasting Businesses

This strategy aims at consumer protection regarding human rights, preventing radio and television broadcasting business operators to violate consumers’ rights in forms of pretense, distortion, prejudice, injustice, dominance or imposition for commercial advantages. The strategy was implemented, focusing on establishing principles of rights protection. A mechanism was set to receive complaints with convenience and efficiency. Solutions were made rapidly with equal treatment. People were encouraged to be active and strong, protect themselves, gain access to and use media efficiently for their own benefits through a process to see through media and social campaigns. The following issues were executed in 2012.

1. Set up a subcommittee on consumer protection in radio and television broadcasting businesses

Following the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services, B.E.2553 (2010), the subcommittee on consumer protection in radio and television broadcasting businesses was established. The act assigns the NBTC to inspect performance of radio and television broadcasting business operators, and radio communications for not having any execution that would likely take advantage over consumers. The NBTC set up two subcommittees, consisting of persons with useful knowledge, expertise and experience for NBTC’s consumer protection in radio and television broadcasting businesses, and radio communications.

2. Establish principles for clarity of behavior that takes advantages over consumers.

This was to give efficient and fair protection of consumer rights and freedom from being taken advantages by radio and television broadcasting business operators. The NBTC introduced its notification, made in the Royal Gazette on December 26, 2012, on any doing that takes advantages in radio and television broadcasting businesses. The notification aimed at establishing principles and guidelines for operations that shall not violate consumers' basic rights. In addition, principles were also established to inspect performance of radio and television broadcasting business operators for not having any execution that would likely take advantage over consumers. The notification focuses on prohibition of radio and television broadcasting business operators from performing any process to take advantage over consumers through networks or advertisements that indicate profiteering or cause troubles and annoyance. In a case of any operator radio broadcasting has been advantages over and brought troubles or damages to consumers, they possess rights to make a complaint to the National Broadcasting Commission of NBTC. In a case of any suspicion that any operators in radio or television broadcasting businesses take advantages over consumers as appeared in the notification, the National Broadcasting Commission of NBTC may assign an inspection towards such case.

3. Complaint processing and management

1) One-stop-service system for receiving and handling complaints.

Easy-to-access channels for filing complaints are established to deal with receiving and investigating complaints, and mediating disputes arisen to consumers. This, in a case of complaints involving consumers, could lead to development of channels for complaints and complaint handling system, investigation, mediation or resolution with speed and no financial burden to consumers. Rehabilitation is done in an appropriate period under efficient process and tools. Presently, the system is under development and is expected to commence in 2013.

2) Complaints concerning radio and television broadcasting businesses.

In 2012, complaints were management on services, noises to people, advertisement (food, drugs and health products), and program content and schedules, as detailed in Table 16 and 17, respectively. About 86.28 percent of total complaints involving services noises to people and advertisement have been resolved, while about 94.33 percent of total complaints concerning program content and schedules have been done.

Table 16 Complaint managements on services, noises to people and advertisement in 2012

Type of service	No. of Complaints	Finalized		Under process	
		No.	%	No.	%
True Visions	269	237	88.10	32	11.90
Satellite TV	65	58	89.23	7	10.77
Free TV	30	29	96.67	1	3.33
Cable TV	12	6	50.00	6	50.00
Radio station	6	5	83.33	1	16.67
Community radio station	68	53	77.94	15	22.06
Others	2	2	100.00	0	0
Total	452	390	86.28	62	13.72

Source: Bureau of Complaint and Consumer Protection in Radio and Television Broadcasting Businesses

Table 17 Complaint managements on program schedules and content in 2012

Type of service	No. of Complaint	No. of Suggestion	Finalized		Under process	
			No.	%	No.	%
Free TV	91	22	105	92.92	8	7.08
Satellite TV	29	6	35	100.00	0	0
Cable TV	27	0	27	100.00	0	0
True Visions	3	0	2	66.67	1	33.33
Radio station	16	2	17	94.44	1	5.56
Community radio station	41	5	42	91.30	4	8.70
Community TV	1	0	1	100.00	0	0
Others	4	0	4	100.00	0	0
Total	212	35	233	94.33	14	5.67

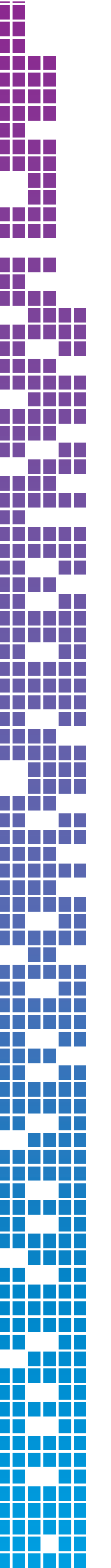
Source: Bureau of Complaint and Consumer Protection in Radio and Television Broadcasting Businesses

To complaints on program content and schedules in 2012, the following direction for handling is described below.

(1) Deliver a letter asking for cooperation to relevant business operators. For example, letters asking for cooperation were sent to 363 business operators, who did not use frequency (membership), to be careful of their advertisement that could be propaganda or deceiving consumers, and inappropriate content.

(2) Acknowledge complaints and advice for preparing principles or improving program and content regulation in radio and television broadcasting businesses.

(3) Send complaints to relevant agencies. For example, complaints concerning electoral campaigns were sent to the Election Committee (EC).



(4) Send an issue to that which regulates radio and television broadcasting businesses (NBTC Office) in a case of that who is filed a complaint does not receive rights to operate community radio broadcasting business.

(5) Send a letter to business operators to solve the complained issues

(6) Administrative punishment by fine.

In addition, to gain benefits for establishment of principles and guidelines for consideration of complaints on program content, meetings were held with relevant public and private agencies, including the Election Committee, the Royal Thai Police, Department of Public Relations, the Office of the Consumer Protection Board, MCOT Plc., True Visions Plc. and Thai TV3. etc.

4. Regulation on illegal and predatory advertisement of food, drugs and health products.

1) Memorandum of Understanding (MOU) was made among the Office of National Broadcasting and Telecommunications Commission (NBTC), Food and Drug Administration (FDA), the Office of the Consumer Protection Board (OCPB) and Consumer Protection Police Division on regulation on illegal and predatory advertisement of food, drugs and health products in radio and television broadcasting businesses. The MOU signing ceremony was held on June 6, 2012. The purpose was to provide protection to consumers to acknowledge actual information and protect them from unfair advertisement that may cause troubles to the overall society with proper period of rehabilitation.

The MOU's scope of work covered from integration of consumer protection involving illegal and predatory advertisement of food, drugs and health products in radio and television broadcasting businesses through exchange and sharing news, information, databases and ideas among consumer protection agencies. This was to allow work flexibility, promotion and support of information dissemination, and publicity of consumer protection knowledge to people and radio and television broadcasting business operators, to efficient legal enforcement for consumer protection, which supports each agency to enforce its own responsible laws to stop illegal or predatory advertisement. Coordination was set for signing agencies and joint working groups were established for each work process as necessary and appropriate.

2) Appointment of a working group on regulation for illegal and predatory advertisement of food, drugs and health products in radio and television broadcasting businesses. The working group was responsible for coordination among agencies related to integration of consumer protection in illegal and predatory advertisement of food, drugs and health products in radio and television broadcasting businesses. This was to allow the MOU's work efficiency, suggest the NBTC regulation direction for its own operation and cooperation with the subcommittee and relevant working groups following the guidelines for regulation in illegal and predatory advertisement of food, drugs and health products in radio and television broadcasting businesses.

3) Memorandum of Understanding (MOU) was made with Nakhonsi Thammarat Rajabhat University on establishment of network for complaints on the illegal and predatory advertisement of food, drugs and health products in radio and television broadcasting businesses. The signing ceremony was held on October 26, 2012. The Office of NBTC would provide information support to create

a model of network establishment for sectoral participation in making complaints on predatory advertisement on food, drugs and healthy products in radio and television broadcasting businesses. Then, the university will interpret data and prepare a summary report with policy recommendations for creation of complaint network for the Office of NBTC. Both agencies will jointly disseminate information and facts from creation of complaint network for predatory advertisement on food, drugs and healthy products in radio and television broadcasting businesses. They will provide knowledge for and make understanding among people and consumers of radio and television media to allow them to see through media's tricks.

5. Establishment of People/Consumer Network and Promotion of Aggregation

1) Promote aggregation to establish network of consumers who are strong and see through media's tricks through panel discussion on consumer protection. Networks of consumers in radio and television broadcasting businesses were created in all regions, aiming to have consumers, who might not perceive their rights, to have learning process in order to see through media's tricks, and encourage them to gather together to establish networks of consumers to keep a watch on radio and TV media. Nine seminars were held for radio and TV media consumers at the regional level, as described in Table 18.

Table 18 Seminar for consumer in radio and television media (regional) in 2012

No.	Province	Date	Place	Area coverage
1	NakhonRatchsima	14-15 July 2012	Ratchapruek Grand Hotel	Chaiyaphum, KhonKaen, Buriram, MahaSarakhm, Surin, UdonThani, NongbuaLampoo, Nongkhai, Leuy
2	UbonRatchathani	18-19 August 2012	Sunee Grand Hotel	Si Saket, Amnat Charoen, Yasothon, Mukdaharn, Karasin, SakonNakhon, NakhonPanom, Buengkarn, Roi Et
3	Chon Buri (Pattaya)	25-26 August 2012	Long Beach Pattaya Hotel	Chanthaburi, Rayong, Chacheongsao, Trad, Sa Kaew, PrachinBuri
4	Suratthani	8-9 September 2012	Diamond Plaza Hotel	Pang Nga, Krabi, Chumporn, Phuket, Ranong, Nakhon Si Thammarat, PrachuabKhiri Khan
5	Bangkok	22-23 September 2012	Miracle Grand Convention Hotel	Nonthaburi, SamutPrakarn, PathumThani, SamutSakorn, NakhonNayok, Ang Thong, SinghaBuri, Ayudhya, Sara Buri, SamutSongkram

No.	Province	Date	Place	Area coverage
6	Kanchanaburi	6-7 October 2012	PavillionRimquare Resort Hotel	NakhonPathom, Ratchburi, SupanBuri, Petchburi, PrachuabKhiri Khan
7	Songkhla (Had Yai)	20-21 October 2012	Centara Hotel, Had Yai	Satton, Patthalung, Yala, Pattani, Trang, Nara Thivas
8	Pitsanulok	3-4 November 2012	Topland Hotel	Uttaradit, Sukhothai, Kamphaengpetch, Pichit, Petchaboon, NakhonSawan, Chai Nat, UthaiThani, Tak
9	Chiang Mai	17-18 November 2012	AmoraThapae Hotel	Lamphoon, Lampang, Mae Hong Son, Chiang Rai, Payao, Prae, Nan

Source: Bureau of Consumer Protection in Radio and Television Broadcasting Businesses

2) Aggregation and activities for consumer protection. A national seminar for consumers in radio and television broadcasting businesses was organized on July 12, 2012 at Century Park Hotel, Bangkok, while events on power of radio-TV consumers were held on November 30, 2012 at the Office of NBTC and December 1-2, 2012 at the National Queen Sirikit Convention Center. Activities included radio-TV consumers' proposals to the BC, declaration on promotion and protection of radio-TV consumer rights of protection, roundtable seminar for tripartite cooperation and public seminars. Workshops on seeing through media's tricks, exhibitions of consumer protection agencies and shows in regional seminars on radio-TV consumers were also held. Over 2,000 participants came from several groups such as regional representatives, children and youth, the handicapped, ageing people, public agencies, private organizations and interested people with a variety of genders.

Promotion of Rights and Freedom for Communications

Promotion of Rights and Freedom for Communications focused on people's wide and equal access or retrieval of information, preventing radio and television broadcasting business operators from becoming obstacles or making intervention in news/view presentation or proving hindrances of rights and freedom in information retrieval or impeding retrieval of versatile information.

1 Establishment of guarantee for people to widely and equally receive radio and television broadcasting services and measures to prevent operators to become obstacles or make intervention in people's news and information retrieval.

1) The NBTC's Notification on The Criteria for Free Television Broadcasting was announced in the Royal Gazette on July 24, 2012, aiming to have people receive general television broadcasting services widely and equally. This consisted of public television services, corporate television services or any other television services as determined by the BC in the following manners.

(1) General television broadcasting service providers shall consistently provide television broadcasting services according to program schedules with the same content in all channels through the terrestrial and satellite systems. Such shall not prevent some or all channels of services. The service providers shall not collect service fees, compensation, operating fees or any other expenses from people who use services.

(2) Television network providers, who serve general television service providers, shall perform their duty, having people receive general television services directly and consistently without program schedules or contents' changes and repetition throughout the terrestrial and satellite systems. The television network providers may collect reasonable and fair compensation on network usage or linkage with equal treatment or the BC requirements.

(3) The television network providers, who serve membership television service providers or membership television service providers with their own network, shall perform their duty, having people receive general television services directly and consistently without program schedules or contents' changes and repetition.

2 The Notification on the Criteria for Important Events, can be Broadcasted only Free Television services was announced in the Royal Gazette, Volume 130, Special Section 1(d) on January 4, 2013. This aimed to have people receive television services fairly, and promote and protect the underprivileged rights in accessing or gaining or using television programs equally as general people do. Seven following liveprograms were set to be broadcasted for people under the general television services only, as detailed in Table 19.

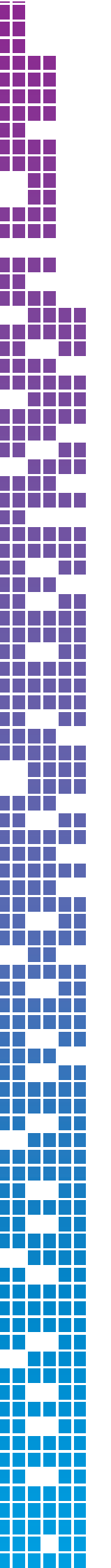
Table 19 Television programs under the Criteria for the Important Event, which can be Broadcasted only on Free Television

Item	Television Program
1	South-East Asian Games, SEA Games
2	ASEAN Para Games
3	Asian Games
4	Asian Para Games
5	Olympic Games
6	Paralympic Games
7	FIFA World Cup Final

2. Promotion of the handicapped, ageing or underprivileged people for equal access into, retrieval and use of information as general people do.

The NBTC manages to provide the following radio and television broadcasting services for the handicapped, ageing and underprivileged people, general people and communities.

1) Service areas: Consultants were hired to conduct a project to study people's accessibility and retrieval of, and demand for information in radio and television broadcasting businesses. Under the project, information was surveyed and collected in areas. Information collected included service



coverage, social information, and information accessibility, retrieval and demand in targeted areas. People's demand and operators' supply were also gathered in the targeted areas.

2) Information involving the handicapped, ageing and underprivileged groups' access into services. Consultants were hired to conduct a project to survey and study information of radio and television broadcasting services for the handicapped, aging and underprivileged persons. The project aimed at gathering basic information to promote and support operators to provide proper and equal services, as the general people do to the targeted groups. Conditions and forms of promotion were designed for operators to provide radio and television broadcasting services for the targeted groups. Database was also administered to support formulation of a plan to promote updated radio and television broadcasting services among the targeted groups.

3) Technology of facilities for the handicapped, ageing and underprivileged persons to access into information. This aimed at promoting the handicapped, aging and underprivileged persons to gain access into, retrieve and use information equally as the general people do, and promote and support research and development of technology of facilities for the handicapped, aging and underprivileged persons to access into information. Consultants were already hired to conduct research and development projects for technology of facilities for the handicapped, ageing and underprivileged persons to access into information.

4) Workshops were held to conduct research on media access of the handicapped, ageing and underprivileged persons, and general people. Such workshops aimed at conducting research on media access of the handicapped, aging and underprivileged persons, and general people through collection of information, comments and suggestion from the handicapped and related persons, while direction for promotion of equal media access was provided. Four workshops for the handicapped in seeing, hearing, motor, and common sense and autistic children were held at the Office of NBTC. Two workshops were organized for research on media access of the underprivileged children and youth at the Century Park Hotel and the Office of NBTC consequently.

3. Preparation of work plans under project for development and enhancement of people's ability to see through media's tricks.

The National Broadcasting Commission of NBTC approved the work plans on project for development and enhancement of people's ability to see through media's tricks, concentrating on people's awareness and enthusiasm of their own rights as citizens and media consumers. Through participation and aggregation, people were encouraged to be keen, to monitor, to make suggestion, to inspect radio and television broadcasting through the following activities.

1) Study and research on design of learning process to see through media among a variety of groups, and develop the study and research results as curriculum in a set of knowledge for creating a network of trainers in the seeing-through-media's trick field. A workshop was held to design the process in seeing through radio-TV media's tricks at BuriThara Hotel, Bangkok during 30 October-2 November 2012.

2) Prepare and operate activities under a plan for social communication campaigns, aiming to encourage and develop people's skills to see through media's tricks through various media and

technology channels. Examples included VTR, a book “100 interesting issues for radioTV consumers” for dissemination of knowledge, a website for radio-TV consumers and newsletter.

Development of Operational Quality of radio and television broadcasting business

This strategy focuses on promoting and developing quality of radio and television broadcasting businesses. Development of personnel, programs and operators were focused in line with the Radio and Television Broadcasting Business Act, B.E. 2551 (2008) and the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunication, B.E. 2553. (2010)

1. Promotion and support of personnel development in radio and television broadcasting businesses

1) Plan to promote and support personnel development in radio and television broadcasting businesses was formulated through a draft of the NBTC’s Notification on training and testing for licenses of notification in radio and television broadcasting businesses. Later, the NBTC’s Notification on training and testing for licenses of notification in radio and television broadcasting businesses, (2013) was introduced in the Royal Gazette on February 1, 2013. Its purpose was to promote and develop capabilities of personnel in radio and television broadcasting businesses with social responsibility and public interests, and mass media in various styles. Promotion, support, monitoring and evaluation were encouraged on quality and standard development in performance of personnel in radio and television broadcasting businesses. The drafted notification consisted of training and testing for licenses of broadcast notification. Training courses for broadcast announcers comprised basic, intermediate and advance levels. Each training level was executed through lectures and practices. When a training course ends, the Office of NBTC will issue certificates for those who pass the training. Training agencies shall use training document certified by the Office of NBTC. To have a similar standard across the nation, those who pass the advance level are able to submit a request for testing and, if pass, receive licenses of broadcast notification.

2) Five panel discussions on “the NBTC and media professional development broadcast announcers: Pride of language usage” were held as shown in Table 20. Participants totaled 1,500. Such project aimed at providing knowledge and bringing understanding about the Radio and Television Broadcasting Business Act, B.E. 2551 (2008) and the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunication, B.E. 2553. (2010) It also promoted and encouraged personnel in radio and television broadcasting businesses to be aware of self-development and quality program, created networks for cooperation, and strengthened relationship among the Office of NBTC, media, relevant agencies and personnel in radio and television broadcasting businesses. Targeted groups included personnel in radio and television broadcasting businesses and those who were interested to work in radio and television broadcasting businesses.

**Table 20 Panel Discussion on “the NBTC and media professional development :
Announcer Certificate : Pride of language usage” in 2012**

No.	Date	Area
1	11 September 2012	Chulaporn Research Institute, Bangkok
2	27 September 2012	Lotus Pang Suankaew Hotel, Chiang Mai
3	10 October 2012	Sunee Grand Hotel, UbonRatchathani
4	27 October 2012	Long Beach Hotel, Petchburi
5	8 November 2012	Metro Poll Hotel, Phuket

Source: Group for personnel development in radio and television broadcasting businesses

2. Training for testers to be on air temporarily in three southernmost provinces to gain knowledge and understanding.

Analysis of problems in broadcasting business, monitoring, inspection and suggestion of direction or regulation policy were made in three southernmost provinces. Knowledge base was established to deal with conflicts and problems in particular areas consistently. Studies were conducted on impacts of radio broadcasting media on insurgence in three southernmost provinces. Training courses were done to enhance knowledge and understanding for temporary testers to be on air in three southernmost provinces and those relevant in the broadcasting business, which became a crucial part in establishing perception of insurgence in all dimensions among people there. This could lead to a certain framework of practices in bringing peace in three southernmost provinces. Three training courses were held at Hansa JB Hotel in Had Yai, Songkhla province. The training resulted in more understanding and knowledge for those passed to become good operators and broadcasters, and bring knowledge gained for their businesses or actually manage broadcasting in three southernmost provinces.

3. Enhancement of knowledge and skills for benefits of those related to radio and television broadcasting businesses.

Knowledge was provided to increase skills that brought benefits to those related to radio and television broadcasting businesses. This was to promote aggregation and development of radio and television broadcasting business operators with international quality, and provide knowledge about good and quality broadcasting. Projects in 2012 were summarized in Table 21.

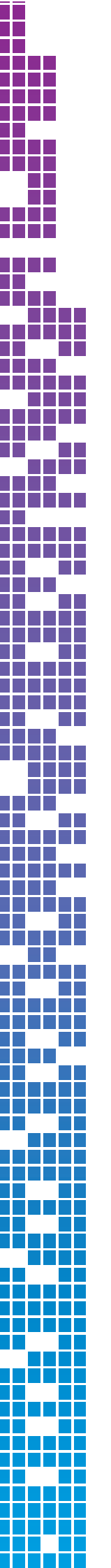
Table 21 Seminar on Knowledge and Skills Enhancement in Radio and Television Broadcasting Business for Related Parties in 2012

Project	Date	Place	Target Group
Public hearing seminar on promotion of aggregation of the Office of NBTC and radio and television broadcasting business operators	29 March 2012	The Office of NBTC	Operators/professionals in radio and television broadcasting businesses
How to broadcast quality programs in community radio broadcasting business?	4 May 2012	The Office of NBTC	Community radio broadcasting business operators in Bangkok and its vicinities
Seminar for radio and television broadcasting business operators in four regions	10 August 2012	SuratThani	radio and television broadcasting business operators
	14 September 2012	Chanthaburi	
	12 October 2012	KhonKaen	
	2 November 2012	Chiang Mai	
Training for development of radio broadcasting business operators on strong community radio, keen society.	20-21 November 2012	NakhonRatchsima	radio broadcasting business operators in NakhonRatchsima and nearby provinces
	17-18 December 2012	Songkhla	radio broadcasting business operators in Songkhla and nearby provinces
Training for journalists in radio and television broadcasting businesses on how to produce quality news with reliability in television broadcasting business	15 December 2012	Bangkok	Journalists in television broadcasting business/students with radio and television broadcasting major

Source : Bureau of Development of Professional Organizations

Transition into Transmission of Radio and Television Broadcasting Signals in the Digital System

This strategy targeted a change into Transmission of Radio and Television Broadcasting Signals in the Digital System for efficient frequency use, according to Article 27 (5), and no less than 20 percent of the people sector to use frequency in radio and television broadcasting business, according to Article 49 and 85 of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunication, B.E. 2553. (2010) Frequencies in the radio and television broadcasting businesses were permitted. Joint use of infrastructure and network was promoted. People were widely encouraged to receive radio and television broadcasting signals in the digital system. Research and development activities on radio and television broadcasting businesses in the digital system were supported. The following activities were made in 2012.



1. Determination of policy framework, guidelines and timeframe for transition into transmission of radio and television broadcasting signals in the digital system.

In order to gain smoothness and certainty of the transition into transmission of radio and television broadcasting signals in the digital system, the BC performed the following activities.

1) On February 16, 2012, the notification was officially made for the beginning of Thailand's transition into transmission of radio and television broadcasting signals in the digital system to the general public, related persons and people. This was to inform them to stand ready about direction for further implementation.

2) The NBTC's Notification on plan for transition into transmission of radio and television broadcasting signals in the digital system was introduced in the Royal Gazette on December 21, 2012. This notification will set a policy and timeframe for transition into transmission of radio and television broadcasting signals in the digital system from the analog system with the reference of the International Telecommunication Union (ITU). Timeframe for transition into transmission of radio and television broadcasting signals in the digital system follows the National Broadcasting Commission's resolution, which set to be in line with the Master Plan on Frequency Management, B.E. 2555 and Master Plan on Radio and Television Broadcasting Businesses, Volume 1 (2012-2016).

3) Regulatory Impact Analysis (RIA) was prepared to assess any impacts that may arise from transition into transmission of radio and television broadcasting signals in the digital system to relevant parties including television broadcasting business operators, consumers, the society and the economy.

2. Preparation of radio frequency for the digital terrestrial television

To utilize the radio frequency for the digital terrestrial television without any disturbances and benefits for consumers and the television industry, the the National Broadcasting Commission's introduced the NBTC's Notification on the radio frequency plan for the digital terrestrial television business in the Royal Gazette on 18 December 2012. A range of digital radio and television signals and simulcast were set to be in line with the country's plan for radio and television frequencies, the plan in the old analog platform, in 1996.

3. Determine standards for transmission of Thailand's radio and television signals in the digital system.

The standard for transmission of Thailand's radio and television signals in the digital terrestrial television system was determined and forwarded to the Cabinet which acknowledged the National Broadcasting Commission resolution on May 20, 2012. Such National Broadcasting Commission resolution was made about certification of DVB-T2 for transmission of Thailand's radio and television signals in the digital terrestrial television, in its Meeting No. 16/2012, dated April 30, 2012.

4. Determine standards for related equipment in broadcasting the digital terrestrial television signals.

Standards for related equipment in broadcasting the digital terrestrial television signals were

determined to have related parties be well-equipped and improve standards of services in the television industry. In 2012, two following NBTC's Notifications were introduced.

1) The NBTC's Notification on Technical Standards for Digital Terrestrial Television Signal Receiver was introduced in the Royal Gazette, Volume 129, Special Section 189(d) on December 18, 2012. This was to permit people to select the standardized digital signal converters and to use the television signal receiver in such system for efficient television watch with quality and advanced technology. Through this movement, consumer protection was provided and benefit was given to the overall television industry. The technical standards specified the minimum techniques for the digital terrestrial television signals: Integrated Digital Television and Set Top Box. With such techniques, the DVB-T2 digital television signals can be transmitted with the Standard Definition (SD) and High Definition (HD).

2) The NBTC's Notification on Technical Standards for Digital Terrestrial Television Services was introduced in the Royal Gazette, Volume 129, Special Section 189 (d) on December 18, 2012. This aimed at having people to receive television services through advanced technology and efficiency frequency use with standards, quality and variety. Such technical standards specify the minimum techniques of equipment for the free-to-air digital terrestrial television through the DVB-T2 system.

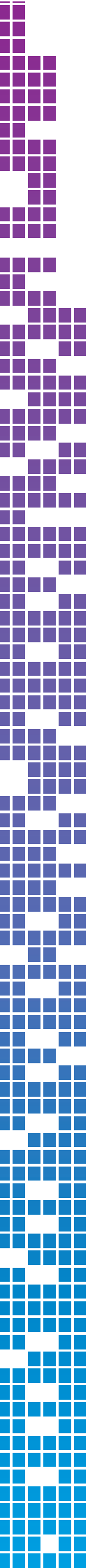
5. Establishment of Relevant Principles and Permission Procedures

1) The NBTC's Notification was drafted on principles and permission procedures for use of frequency in digital television. This was to have those intending to use frequency for their operations to know about qualifications of applicants, request process for permission, principles for permission, necessary document or information for permission, consideration process for permission, approval period, scope of permission for frequency and other necessary conditions for permission of frequency for digital television services in advance. In 2012, the draft passed the public hearing. Later, the NBTC's Notification on principles and permission procedures for use of frequency in digital television, B.E. 2556 (2013) was introduced in the Royal Gazette, Volume 130, Special Section 26 (d) on February 26, 2013.

2) The NBTC's Notification was drafted on additional principles and permission procedures for network services of digital terrestrial television. This aimed for those intending to operate network services of digital terrestrial television to be informed additional principles and permission procedures for network services of digital terrestrial television. This was in addition to principles and permission following the NBTC's Notification on principles and permission procedures for broadcasting network services. In 2012, the draft passed the public hearing. Later, the NBTC's Notification on additional principles and permission procedures for network services of digital terrestrial television, B.E. 2556 (2013) was introduced in the Royal Gazette, Volume 130, Special Section 26(d) on February 26, 2013.

6. Preparation for Transition into Transmission of Radio and Television Broadcasting Signals in the Digital System

To make technical preparation for transition into transmission of radio and television broadcasting signals in the digital system, the memorandum of understanding (MOU) was signed among



the Office of NBTC, Royal Thai Army (Royal Thai Army Radio and Television), MCOT Plc. and the Department of Public Relations on cooperation for pilot tests of transmission of radio and television broadcasting signals in the digital system in 2012. The signing ceremony was held at Centara Grand, on 3 December 2012. Under the MOU, joint pilot tests were done for transmission of radio and television broadcasting signals in the digital system. This was to have services with efficiency, and support research and development in radio and television broadcasting signals in the digital system in the following areas.

- 1) Test of system equipment for transmission of radio and television broadcasting signals in the digital system.
- 2) Research on transmission system of radio and television broadcasting signals in the digital system.
- 3) Promotion and support of personnel development in radio and television broadcasting signals in the digital system.
- 4) Knowledge enhancement for people on benefits of transmission of radio and television broadcasting signals in the digital system.

Development of Administration for Efficient Regulation Organization

This strategy concentrates on the systematic and efficient administration under the governance, professional resources and widely-accepted organizations for related sectors. In 2012, the following dimensions constituted development of administration for efficient regulation organizations.

Monitoring and evaluation of work progress for the Master Plan on Radio and Television Broadcasting Businesses.

Monitoring and evaluation of work progress became another key success, emphasizing on gathering and analyzing quantitative and qualitative information, and forwarding them to the BC for acknowledgement on a regular basis. Results of monitoring and evaluation can be employed for planning and improvement throughout the remaining period of the Master Plan for the Radio and Television Broadcasting Businesses. Therefore, work implementation can be improved or project targets and activities can be altered to be in line with changing resources or environment. Evaluation results can also be used for planning in the next periods. The following monitoring, inspection and evaluation were made periodically for systematic execution and efficient achievement.

A subcommittee on monitoring the Master Plan for the Radio and Television Broadcasting Businesses was established on February 8, 2012. Its task was to supervise and monitor the subcommittee in assisting the radio and television broadcasting businesses and the Office of NBTC, through analyses of factors for progress, causes of problems or obstacles, to be in accordance with the Master Plan.

Human Resource Development

According to the beginning of several missions, both laws and regulations which has developed to encourage people with a better understanding of the regulation in broadcasting business in order

to apply their knowledge in practice and make their operation efficient and productive, the NBTC had thus focused on human resource development training. In 2012, there were the training courses both locally and abroad, such as course on Basic Knowledge of Regulation in Broadcasting and television Business, Regulating Broadcasting Introductory and Intermediate Course : Economic, Legal and Policy Issues, Training Course on Media Regulation in the Digital Age course Broadcasting Media Regulation: Content Regulation in Broadcast Media Industry and course on the use of technology for administrative tasks etc.

Long-term potential development of the organization

The NBTC had initiated management system by using Functional Competency applied to the administration and human resource development of the office of NBTC on broadcasting business by setting the competency standard which the organization, competency measurement of personnel enhancing to standardized competency, increase efficiency in human resource management of the Office of NBTC to be modernized, efficient and transparent regulation agency, which are able to meet the need of relevant sectors as well.

The preparation of the building for operation on broadcasting and television business practitioners

The number of missions and personnel who operate more tasks including outside staffs from relevant sectors as well as necessities to communicate to each other, meeting, consultation and collaboration, had been increased. There will be demands for the Office of NBTC, especially Broadcasting and Television business to provide which has communicate to each other, meet and consultation and collaborate increase the need for the Office of NBTC on Broadcasting and Television Business has to provide the places for main duties operations. In 2012, the Office of NBTC had leased and improved the second floor (Lobby floor) nineteenth floor, twentieth floor and twenty-fifth floor of Exim Bank Building, with space of approximately 3,771 square meters. The renovation of operating office will be completed and NBTC staff can move to by the 1st quarter of 2013.

Progress in all NBTC's Notification and regulations in Broadcasting and Television

Progress in all NBTC's Notification and regulations that were enforced and announced in the Royal Gazette in 2012.

A large number of announcements or regulations, which remained as major contributions of the Master Plan, have been enforced. These acted as foundations for radio and television broadcasting businesses in license structuring, and regulation after licensing and others pertinent to development of radio and television broadcasting businesses with the following elements:

Table 22 NBTC' Notifications and regulations enforced in 2012 (Radio and Television Broadcasting)

Item	NBTC' Notifications/Regulations
Permission	<ol style="list-style-type: none"> 1. Principles and types of radio and television broadcasting businesses 2. Principles on permission of pilot operations for radio broadcasting, B.E. 2555 3. Principles and permission procedures for temporary use of frequency in radio and television broadcasting businesses for the purposes of pilot tests or testing. 4. Principles and permission procedures for radio and television broadcasting businesses, B.E. 2555 5. Principles and permission procedures for broadcasting network services, B.E. 2555 6. Principles and permission procedures for facilitation in radio or television broadcasting, B.E. 2555 7. Principles and permission procedures for production, imports, distribution or stock for distribution or installation of receivers, tools or equipment for receiving or converting signals for membership radio or television broadcasting businesses, B.E. 2555
License fee	<ol style="list-style-type: none"> 1. License fee for operation of radio or television broadcasting businesses, B.E. 2555
Appointment of officials	<ol style="list-style-type: none"> 1. Appointment of officials who issue additional licenses following the Radio Communications Act, B.E. 2498 2. Appointment of officials who issue additional licenses following the Radio Communications Act, B.E. 2498 3. Appointment and assignment of officials to perform regulation in radio and television broadcasting businesses on behalf of the NBTC 4. Appointment and assignment of additional officials to perform regulation in radio and television broadcasting businesses on behalf of the NBTC
Principle in a case of a disaster or an emergency	<ol style="list-style-type: none"> 1. Principles and work procedures of radio and television broadcasting business operators in a case of a disaster or an emergency
Technical standards	<ol style="list-style-type: none"> 1. Principles for testing of technical standards of transmitter of radio broadcasting for pilot tests of radio broadcasting business 2. Technical Standards for Digital Terrestrial Television Services 3. Technical Standards for Digital Terrestrial Television Signal Receiver
Plan for transition into the digital system	<ol style="list-style-type: none"> 1. Transition into transmission of radio and television broadcasting signals in the digital system 2. Plan for radio frequencies for digital terrestrial television
Notification of frequency use and legal inspection	<ol style="list-style-type: none"> 1. Principles and timeframe for notification of details of frequency use and necessity to own frequency for operation of radio and television broadcasting businesses. 2. NBTC regulation on legal inspection for permission, concessions or contracts in radio and television broadcasting businesses, B.E. 2555 (as work guidelines for groups, subcommittees and the BC on consideration of legality of permission, concessions and contracts)
Approval process for request or complaints	<ol style="list-style-type: none"> 1. Determination of approval procedures and timeframe for request or complaints on radio and television broadcasting businesses
General television broadcasting service	<ol style="list-style-type: none"> 1. Principles for General television broadcasting services
Consumer Protection	<ol style="list-style-type: none"> 1. Predatory acts on consumers in radio and television broadcasting businesses, B.E. 2555

Source: Bureau of Radio and Television Broadcasting Businesses

Section 4 | Regulation on Telecommunications

Key achievements of the National Telecommunications Commission of NBTC

In 2012, the National Telecommunications Commission of NBTC has achieved several performances which are crucial to its effectiveness and transparency, creating fair and free competition among the operators and providing public the variety of services via advanced telecommunications network at reasonable prices thoroughly and equally on the basis of fair competition with worthy resource utilization as well as providing a thorough basic telecommunications services and social service and imposing the measures for effective consumers protection as follows :

1. Telecommunications business license awarding
2. Promoting competition in telecommunications business
3. Regulation of telecommunications business
4. Development, Adjustment and setting the guidelines, rules and regulations related to the regulation of telecommunications business
5. Consumer protection in telecommunications business
6. Technology and infrastructure management in telecommunications business
7. Universal Basic Telecommunications Services and Social Services
8. Communication resource management such as telecommunications numbers
9. Progress of the implementation of the Telecommunications Business Master Plan No.1 B.E. 2555-2559 (2012-2016)

Telecommunications business licensing

In 2012, the NBTC has approved telecommunication business license to telecommunications carriers and 11 licenses to internet service provider, a total number of 33 cases as follows:

1. Telecommunications licenses with their own network

In 2012, the NBTC has approved and renewed telecommunications business licenses to providers with their own network infrastructure and the use of spectrum licenses for telecommunication business as shown in Table 23.

Table 23 Statistics of Telecommunications business licensees to providers with the own network in 2012

No.	License Type	Number
New licenses		
1	Telecommunications business license Type III	5
2	Telecommunications business license Type II with their own network	1
3	Internet services licenses Type II with their own network	2
4	Spectrum licence for telecommunications business	3
Licenses renewing		
1	Internet services licenses Type II with their own network	2

Note: There were 2 providers granted the telecommunication network services licenses and the other 3 carriers got IMT mobile network services licenses with 2.1 GHz spectrum.

Source: Bureau of Telecommunications Business Licensing

Since 2005 licenses to telecommunications providers with their own networks has been approved continuously to promote free and fair competition. Currently, there are licenses that are active in the market totaled 134 as details shown in Table 24.

Table 24 Number of Telecommunications business licenses during 2005-2012

Year of Approval	Telecommunication business licenses Type I			Telecommunication business licenses Type I with their own networks		
	Total numbers in approval year	Total number in expire year	Accumulative numbers	Total numbers in approval year	Total number in expire year	Accumulative numbers
2005	2	0	1	0	0	0
2006	3	0	5	1	0	1
2007	37	0	42	2	0	3
2008	33	2	73	0	0	3
2009	30	15	83	2	0	5
2010	34	15	107	2	0	7
2011	29	3	133	3	0	11
2012	9	8	134	0	1	9

Source: Bureau of Telecommunications Business Licensing

2. Internet services licensing

In 2012, the NBTC has approved internet services licenses to 2 providers who has their own networks as shown in Table 25, and internet services licenses renewal to 2 providers, as shown in Table 26.

Table 25 Statistics of Internet Service Provider License in 2012

Company	License number	Date of Approval	Date of Expire	Service
Internet services provider licenses Type II with their own networks				
1 TOT Public Co.,Ltd	NTC/INT/II/001/2012	14 Feb 2012	13 Feb 2017	IIG/NIX with network
2 BB Connect Co.,Ltd.	NTC/MM/INT/ISP/I/002/2012	31 Jul 2012	30 Jul 2017	IIG/NIX with network
Internet services provider licenses Type III				
None				

Source: Bureau of Telecommunications Business Licensing

Table 26 Statistics of Internet Service Provider License Renewal in 2012

Company	License number	Date of Approval	Date of Expire	Service
Internet services provider licenses Type II with their own networks				
1 CS Loxinfo Public Co.,Ltd	NTC/INT/II/003/2007	26 April 2012	25 April 2017	IIG/NIX with network
2 Super Broadband Network Co.,Ltd	NTC/INT/II/008/2007	15 Oct 2012	14 Oct 2017	IIG/NIX with network

Source: Bureau of Telecommunications Business Licensing

Since 2005-2012 the NBTC has approved licenses to telecommunication operators in the first and second types as well as internet service providers in the first and second series in order to promote free and fair competition continuously. There are 301 telecommunication business operation licensees.

Promoting competition in telecommunications business

In 2012, the NBTC the assigned the Office of NBTC to monitor competition condition in the telecommunications market as of the third quarter of 2012 by relevant market, which complied to the NBTC's Notification on the definition and scope of the telecommunications market 2008. Conclusion on competition condition in the telecommunications market indentified as follows :

1. Retail market services (Retail Market)

Overall, level of competition was stable and concentrated among the major carriers. Overall competitive behavior in the retail market reflected in form of sales promotion both in price competition and quality development with the new technology service. Some operators also had taken the advantage by linking their retail services with other services into bundled services packages.

The potential services for competition are mobile phone service in domestic market and high-speed Internet service. For domestic mobile phone market, service providers have developed to upgrade the existing network system to HSPA network which can provideservice thoroughly both in service areas and new

supporting technology, although they upgraded from existing network. In addition to these developments, mobile phone operators merged the business with other company in order to increase client devices. In high speed internet service, providers has focused on quality competition content and technology development

2. Wholesale services market (Wholesale Market)

Based on data from telecommunication network access service and interconnection service markets only found that market value of the wholesale telecommunications services mainly concentrated in interconnection market.

Considering the network access market, the concentration of market share are among Symphony Communication Public Co., Ltd. (SYM), Electricity Generating Authority of Thailand (EGAT) and TOT Public Co.,Ltd. (TOT), which own the core infrastructure across the country. While market share of interconnection market concentrated in the same groups of providers as in domestic retail mobile service market.

1. Conclusion of the competition conditions in retail service market analysis

The Office of NBTC has conducted an analysis of competition conditions in limitation of data collection by Best Available Evaluation techniques, which lead to conclusion of the retail market analysis in four markets ; 1) domestic fixed line telephone market 2) domestic mobile phone service market 3) the international telephone service and 4) internet services market particularly in high-speed Internet service.

1) Domestic fixed line telephone service market

In Domestic fixed line telephone service market, there are three operators ; TOT (TOT) which provide service nationwide, True Corporation (TRUE), which can provide service in Bangkok and vicinity only and TT & T Public Co.,Ltd. (TT & T), which provides services in the region.

In fixed line telephone service, there are five service providers that are TOT (TOT), True Corporation (TRUE), TT & T Public Co.,Ltd., Triple T Broadband Public Co.,Ltd. and True Universal Convergence Co.,Ltd. (TUC). TRUE and TT & T are existing provider under of private persons arising under the Transfer-Operate (BTO) with TOT. For TTTBB and TUC, which were granted the licences in 2006 has provided both fixed line telephone, public telephone, VoIP, fixed network and information service etc. Although both companies are licensed and operate their fixed line and data services since early 2008, but they face the limitation of telecommunications numbers allocated ; 131,000 numbers allocated to Triple T Broadband and the other 25,000 numbers allocated to TUC.

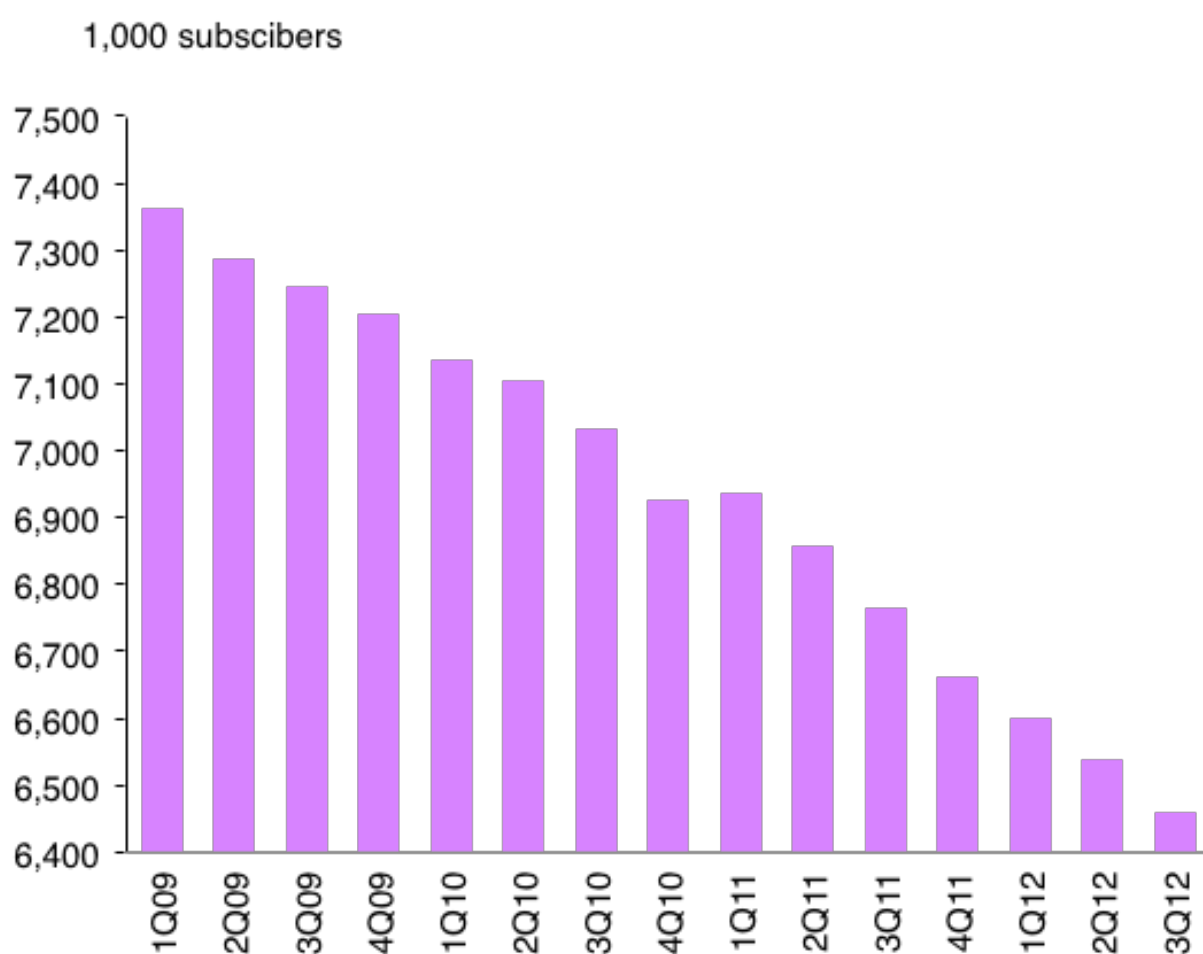
Therefore, the Office of NBTC has not taken those information into consideration and continue to analyze by using the operating data of only 3 service providers in the market and summarized telephone subscribers number by service areas at the end of the 3rd quarter of 2012 as shown in Table 27 and Chart 8.

**Table 27 Number of Fixed telephone subscribers at the end of the 3rd quarter of 2012
(compared to 2nd quarter/2012 and 3rd quarter/2011)**

Number of subscribers (Sub.)	Q3/2012	Q3/2011		Q2/2012	
		Sub.	Y-o-Y(%)	Sub.	Q-o-Q (%)
Nationwide	6,458,278	6,763,665	-4.52%	6,539,286	-1.24%
Bangkok and nearby Provinces	3,423,118	3,530,490	-3.04%	3,449,307	-0.76%
Regions	3,035,160	3,233,175	-6.12%	3,089,979	-1.77%

Source: Bureau of Academic and Telecommunications Resource Management

Chart 8 Numbers of Fixed line telephone subscribers since 1st quarter /2009 to 3rd quarter /2012



Source: Bureau of Academic and Telecommunications Resource Management

Chart 9 Market shares of Fixed line telephone services in the third quarter of 2012



Source: Bureau of Academic and Telecommunications Resources Management

Regarding the services areas in Bangkok and vicinity, which had two operators (TOT and TRUE), it has illustrated that TRUE has had market share at 2nd quarter of 2012 at 54 percent more than TOT at 46 percent. For the service area in the region, TOT and TT & T, found that TOT's market share increased slightly, to 75 percent, as a result of TOT promotion only. While the TT & T in the process of rehabilitation market share was down from the previous quarter, to 25 percent, as shown in Chart 9.

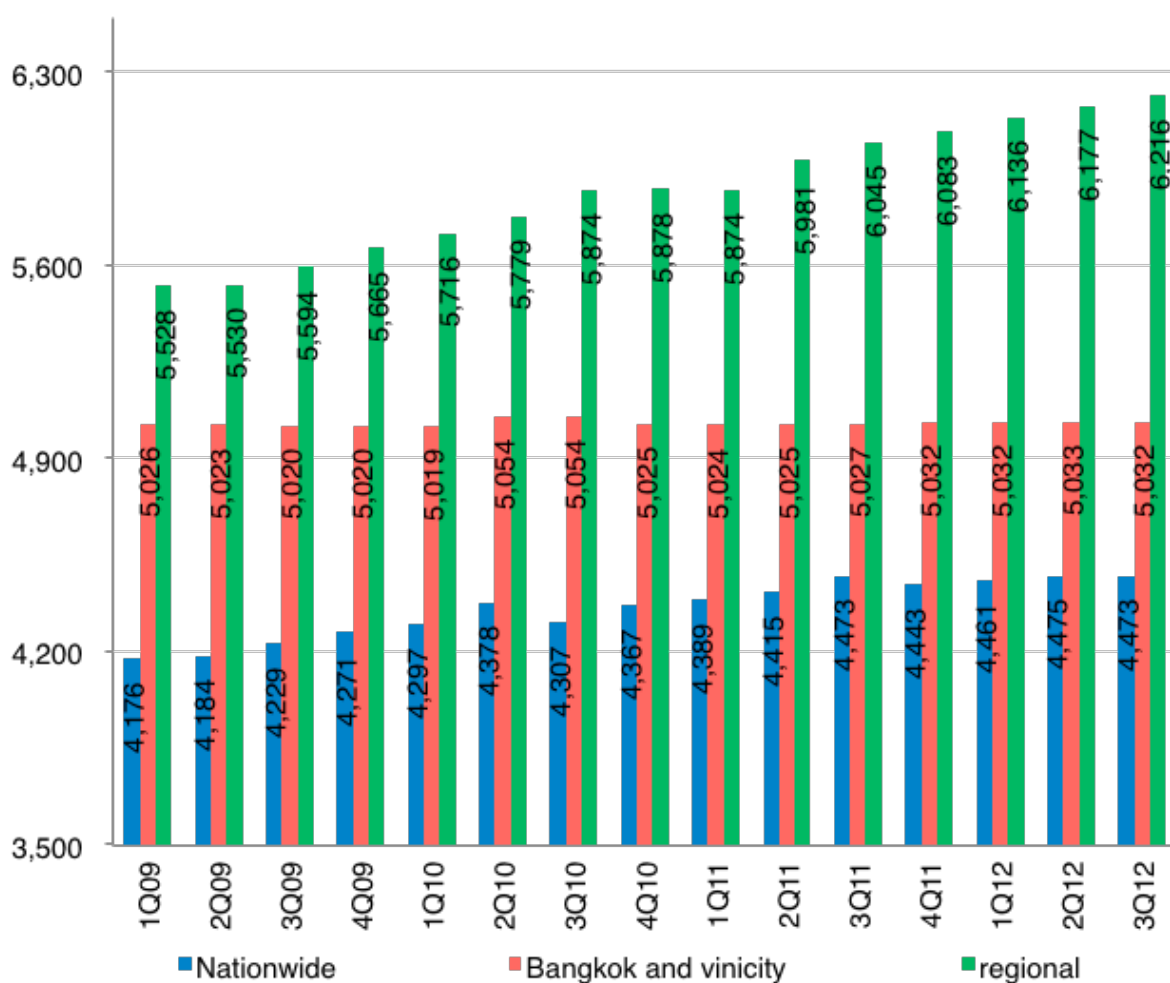
To analyze market competition in the nationwide level, it uses the index Herfindahl - Hirschman Index (HHI), where HHI is an indicator of the level of competition in the market or industry. The results of the HHI show the competition level in market as follows:

- Result of the HHI is less than 1000 means the market is highly competitive.
- Result of the HHI is between 1000 to 1800 means that the market is moderately competitive.
- Result of the HHI value is greater than 1800 means that the market is low and there is a possibility that there may be a major provider in the market.
- Results for the HHI market means that market is on hand of a monopoly provider

The HHI calculations of telephone service markets across the country found that from 2009 to 2012 is still higher than 1800 in every quarter. The latest data as of the 3rd quarter of 2012, the HHI index equals 4,473, as shown in Chart 10.

Regarding separate area of the fixed telephone service, it has illustrated that the concentration of HHI index is greater than 1800, in line with HHI index of nationwide. In the 3rd quarter of 2012 the concentration of HHI index in Bangkok's and nearby province's service areas equal to 5,032 and 6,216, respectively. Those values indicate that fixed line telephone service market has low competition and market share still highly concentrated in market leaders.

Chart 10 HHI index of Fixed line telephone service market (since 1st quarter of 2009 to 3rd quarter of 2012)



Source: Bureau of Academic and Telecommunications Resources Management

2) Mobile services market

Currently mobile service market divides into two group of service providers as follows:

Group 1 Those who have right to own network. There are 6 providers: Advanced Info Service Public Co.,Ltd (AIS) Total Access Communications Public Co.,Ltd. (DTAC) Digital Phone Co.,Ltd (DPC) True Move Co.,Ltd (TMV), CAT Telecom Public Co.,Ltd. (CAT CDMA) and TOT3G.

Group 2 Those who rent the virtual infrastructure or Mobile Visual Network Operators: MVNO, which are service partners with TOT3G. This group has 5 providers: Samart I - Mobile with service under i-mobile 3G brand, Loxley provides service under i-Kool 3G brand, IEC group provides service under IEC3G brand, M Consult provides service under the brand of MOJO3G and 365 Company provides service under the 365 brand all of five partners operate under the contract with TOT3G. For Real Move or True Move H, this provider has the contract with CAT CDMA in development of network infrastructure and cooperation in providing services.

Based on the number of users of mobile services by type of service is a type of Pre-paid and Post - paid at the end of the third quarter of 2012 as shown in Table 28 and Chart 11.

Table 28 Number of telephone subscribers (at the end of the third quarter of 2012 quarter 2/2012 and quarter 3/2011)

Number of Subscribers	Q3/2012	Q2/2011		Q2/2012	
		Sub.	Y-o-Y(%)	Sub.	Y-o-Y (%)
Total sub.	80,871,333	76,982,728	5.05%	79,406,967	1.84%
Pre-paid	71,917,217	69,163,728	3.98%	70,809,349	1.56%
Post-paid	8,954,116	7,819,000	14.52%	8,597,618	4.15%

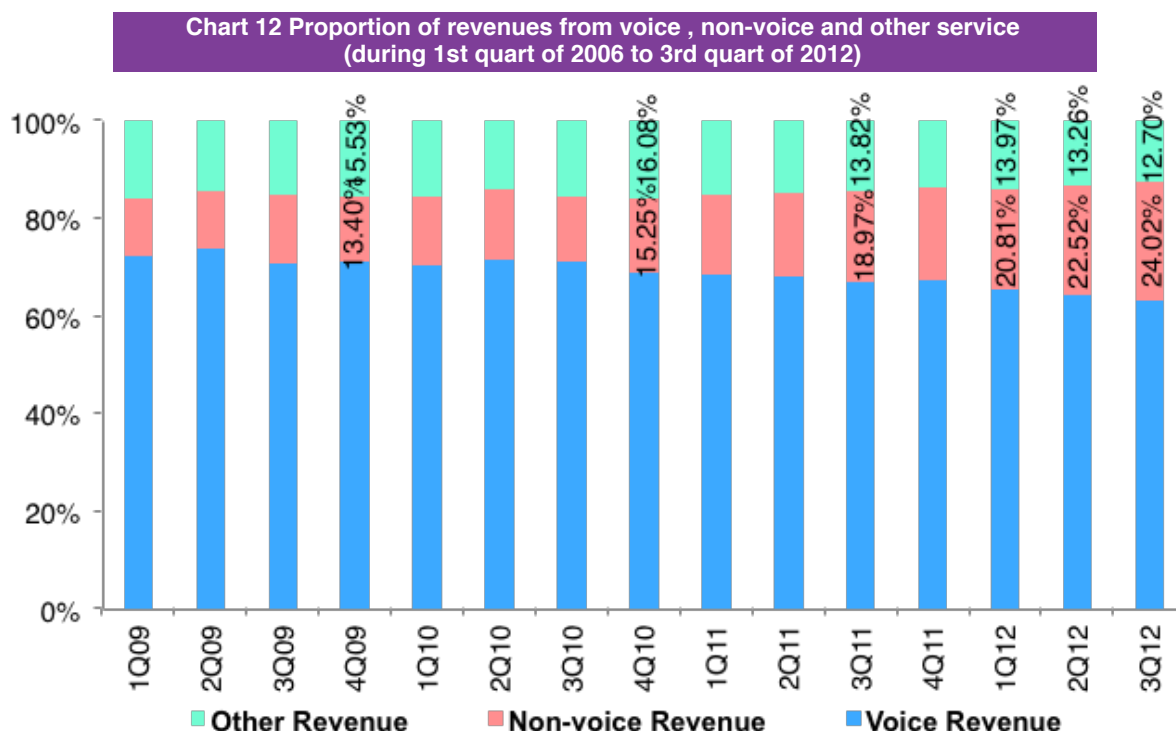
Source: Bureau of Academic and Telecommunication Resource Management

Chart 11 Numbers of Mobile phone subscribers (since 1st quart of 2009 to 3rd quarter of 2012)



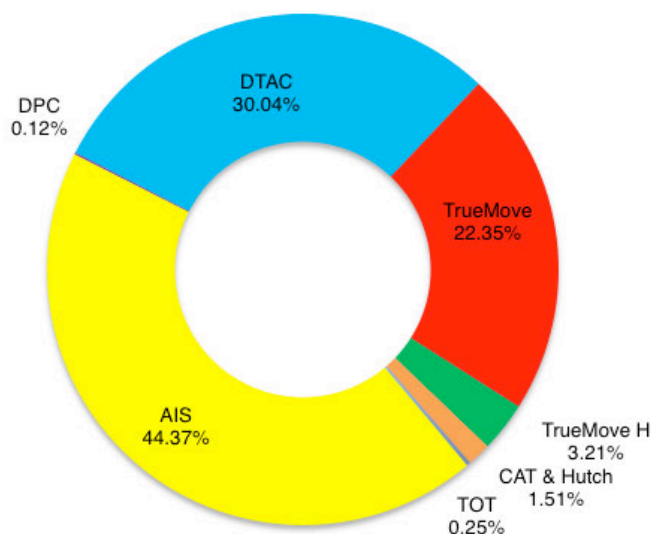
Source: TBureau of Academic and Telecommunication Resource Management

If we consider the details of the proportion of income that is generated from 3 services; voice service, non-voice services, including SMS and MMS and other services including access to internet services and ring tone services etc., it found that at the end of the 2nd quarter of 2012, revenue from voice services has been the largest proportion at 63.28 percent of all revenue. For non-voice services, the proportion of revenues increased to 24.2 percent of overall service revenues while revenues from other services were at 12.70 percent, as shown in Chart 12.



Source: Bureau of Academic and Telecommunications Resource Management

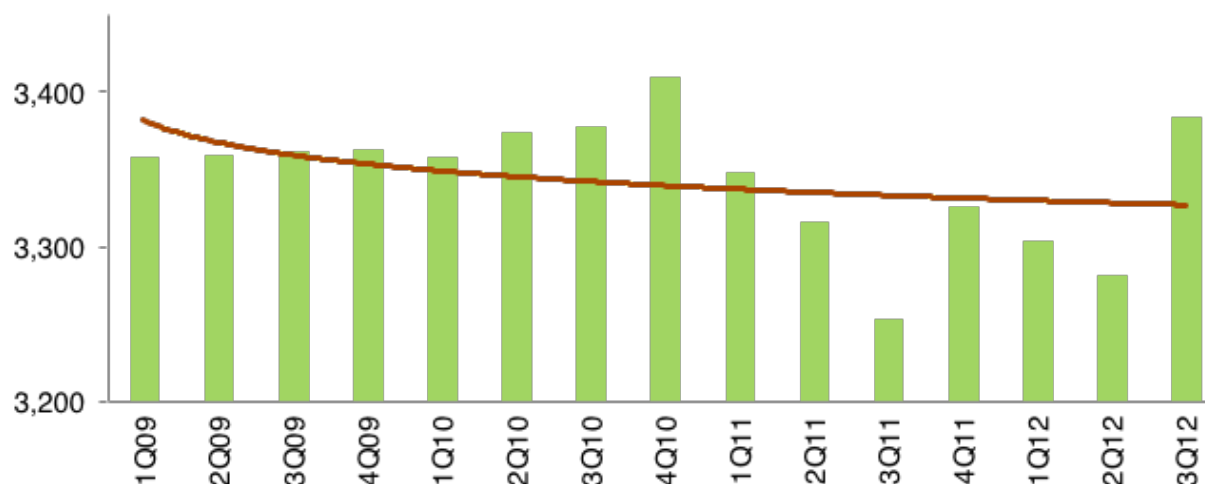
Chart 13 Market share of Mobile phone services at the end of 3rd quarter of 2012



Source: Bureau of Academic and Telecommunications Resource Management

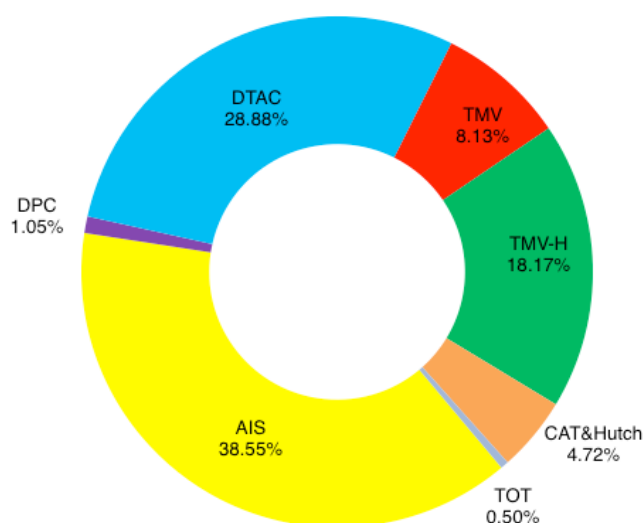
Regarding to the level of competition of the market, mobile services using the index Hefindahl-Hirschman Index (HHI) illustrated that mobile phone service in the 3rd quarter 2012 the market share of mobile phone service at the end of the 3rd quarter 2012, as shown in the Chart 13 and the HHI index is at 3383, as shown in Chart 14, increased from the previous quarter and increased from the same quarter of the previous year as well.

Chart 14 HHI index of Mobile phone services market (during 1st quarter of 2006 to 3rd quarter of 2012)



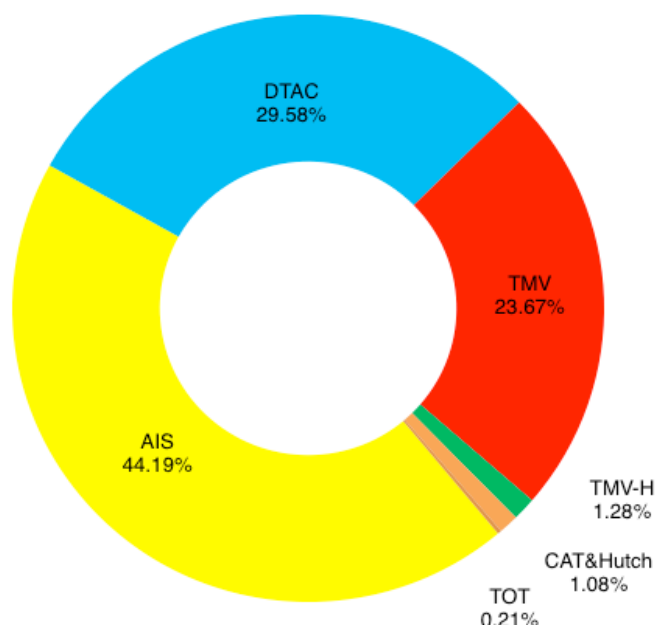
Source: Bureau of Academic and Telecommunications Resource Management

Chart 15 Market share of Post-paid Mobile phone service at the end of 3rd quarter of 2012



Source: Bureau of Academic and Telecommunications Resource Management

Chart 16 Market share of Pre-paid Mobile phone service at the end of 3rd quarter of 2012

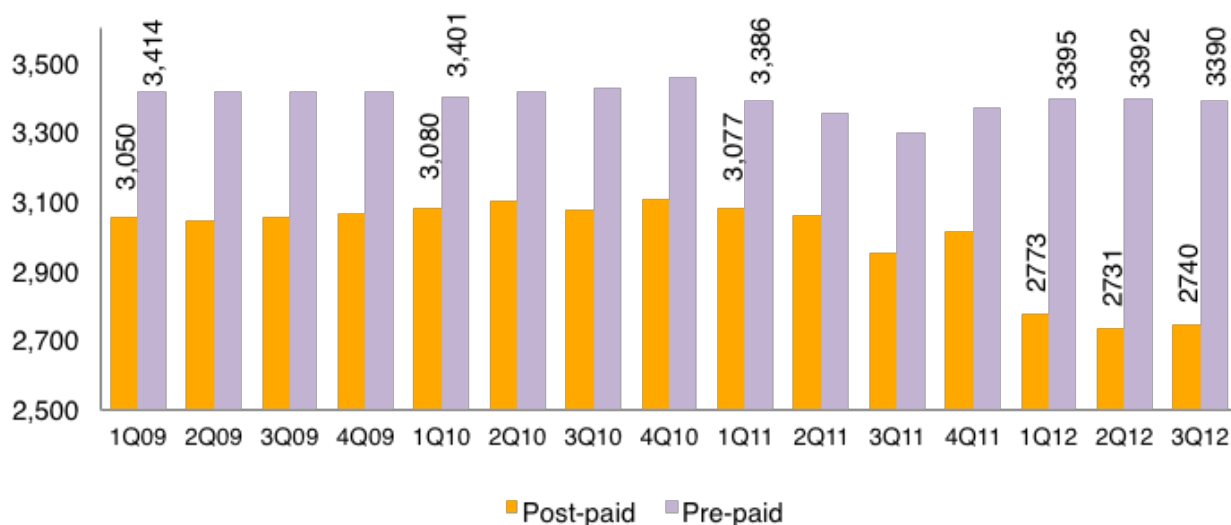


Source : Bureau of Academic and Telecommunications Resource Management

For the competition for the types of services which responds to different service charges, it can be divided into different types of mobile services market as Post - paid and Pre - paid.

Considering the level of competition by the types of services at the end of the 3rd quarter of 2012, mobile market of Pre - paid had a level of competition closed to the level at the 2nd quarter of 2011. For the mobile market of Post - paid had a competitive level better than the past as shown in Chart 15 and Chart 16 respectively. This because TRUE Move H has entered to compete in the market. Although the mobile phone had higher level of competition, the HHI index of mobile services market remained high since the service remains concentrated within three major carriers, as shown in the Chart 17.

**Chart 17 HHI index of Post-paid and Pre-Paid Mobile phone service markets
(during 1st quarter of 2006 to 3rd quarter of 2012)**



Source: Bureau of Academic and Telecommunications Resource Management

3) Internet service market

High speed Internet has three major providers that are TOT, True Internet Co., Ltd. (True Internet) which True Internet have been revised the number of Internet users are during 2nd quarter of 2010 to 2012 (data covering users from cable and ADSL system services and the Corporate Internet Business services), led to change in ranking and market share in the past year. (More details on data verification from center for Telecommunications Economic Research under Bureau of Academic and Telecommunications Resource Management) and Triple T broadband Co.,Ltd. (TTTBB). The number of Individual or Access high speed internet broadband subscribers and Corporate Internet Business users continue to increase. and at the end of the 3rd quarter in 2012, there were to 4.06 million subscribers, up from the same quarter of previous year or increased 14.37 percent and up from 0.25 percent in the previous quarter, as shown in the Table 29.

**Table 29 Number of High speed Internet subscribers
(at the end of 3rd quarter in 2012, compared to 2nd quarter of 2012 and 3rd quarter of 2011)**

Number of Subscribers	Q3/2012	Q3/2011		Q2/2012	
		Million subs.	Y-oY%	Million subs.	Y-oY%
Number of Sub.	4.06	3.55	14.37%	4.05	0.25%

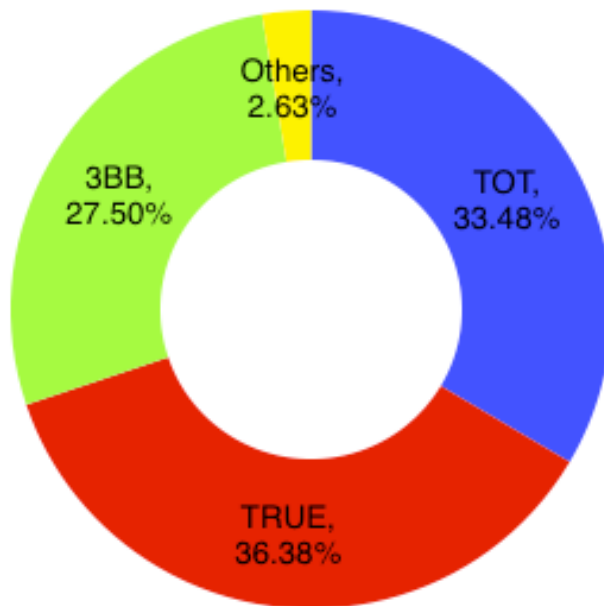
Source: Bureau of Academic and Telecommunications Resource Management

Although the number of subscribers in Internet broadband market has simply increased, the competition between services providers still concentrated in major service providers. In addition, the major providers have an advantage over smaller ISPs because they are affiliated to or in the group of fixed line telephone service provider. Therefore, in order to prepare for the expansion of high speed

internet service market, fixed line network owners have incentives to become ISPs by creating affiliated company to provide this service.

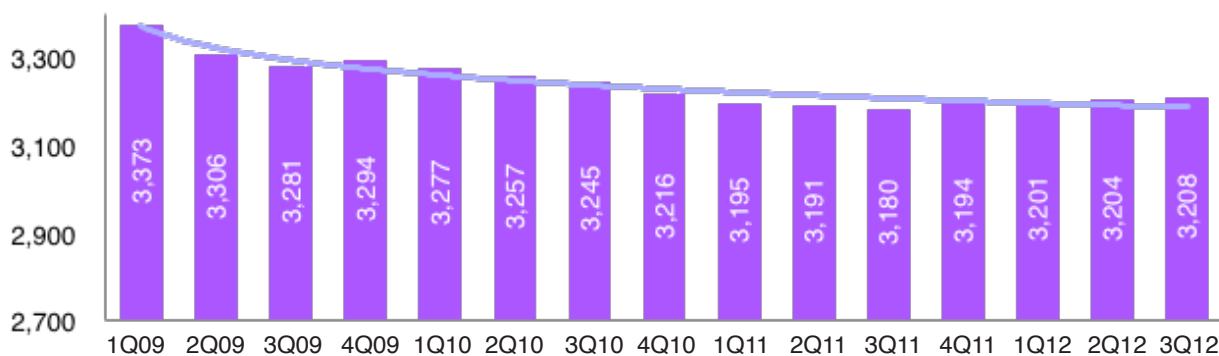
Considering the level of competition in the broadband Internet market found that high speed internet services in the 3rd quarter of 2012 have the market share, as shown in Chart 18, and the HHI index, as shown in Chart 19.

Chart 18 Market share of High speed Internet market at the end of 3rd quarter, 2012



Source: Bureau of Academic and Telecommunications Resource Management

Chart 19 HHI index of High speed Internet market (during 1st quarter of 2009 to 3rd quarter of 2012)

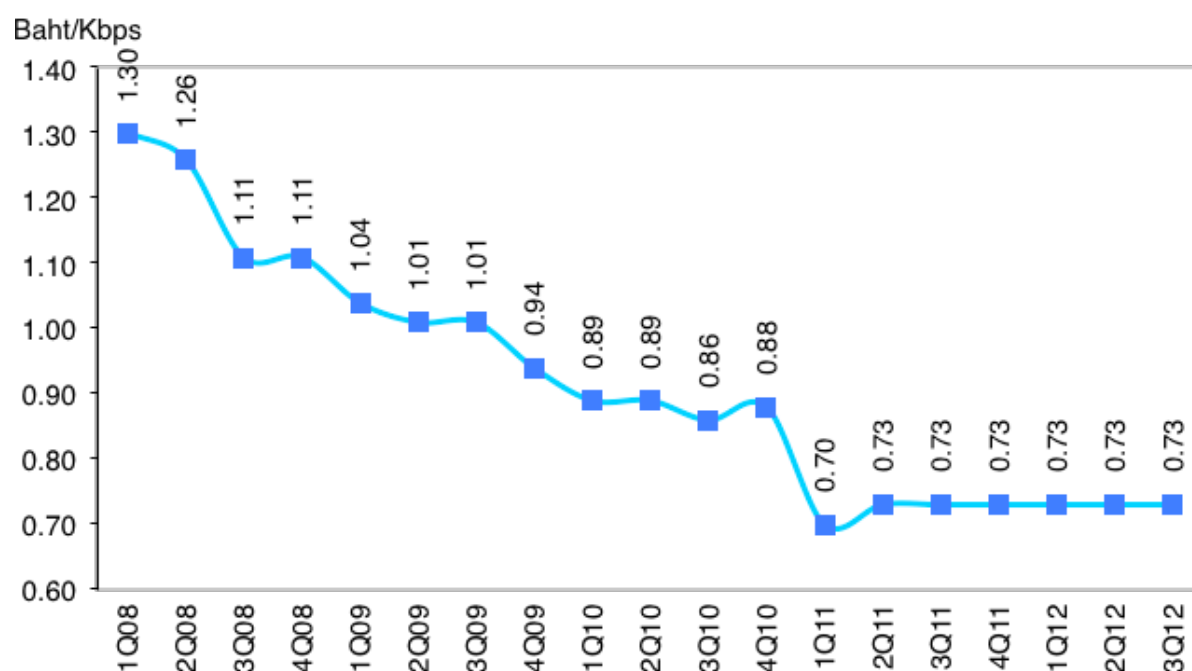


Source: Bureau of Academic and Telecommunications Resource Management

For market conduct in the Internet service market, it found that the ISP providers still tried to attract subscribers with Bundle services offerings by merge the fixed line telephone with The Internet service. In some promotions, users can turn the internet bill into the phone bill.

Regarding the broadband internet service, fees in the 3rd quarter 2012 unchanged from the 2nd quarter of 2012, which providers continue to offer fee per month 590 bahts for speed of data transfer at 10 Mbps (reference to broadband internet charge on months of TOT, which is the same as Triple T Internet, but when compared to the same period of 2011, the service provides offers speeds of data transmission at 4 Mbps for a monthly charge of 599 bahts.) This means consumers can upload and download data faster while paying for the service cheaper. Consumers can choose the service that is consistent with their behavior. Considering costs in another aspect, the speed charge in Kilobit per second (kbps) showed that the average rate charged in the third quarter of 2012 remained at 0.73 per kbps as shown in Chart 20.

Chart 20 Average charge rate of Internet services in Kbps



Source: Bureau of Academic and Telecommunications Resource Management

4) international telephone service market.

Telephone service providers in the international market, classified by service with IDD Prefix and IDD Prefix as follows.

1) the IDD Prefix is shown in Table 30 below.

Table 30 Service providers with International Dialing IDD Prefix.

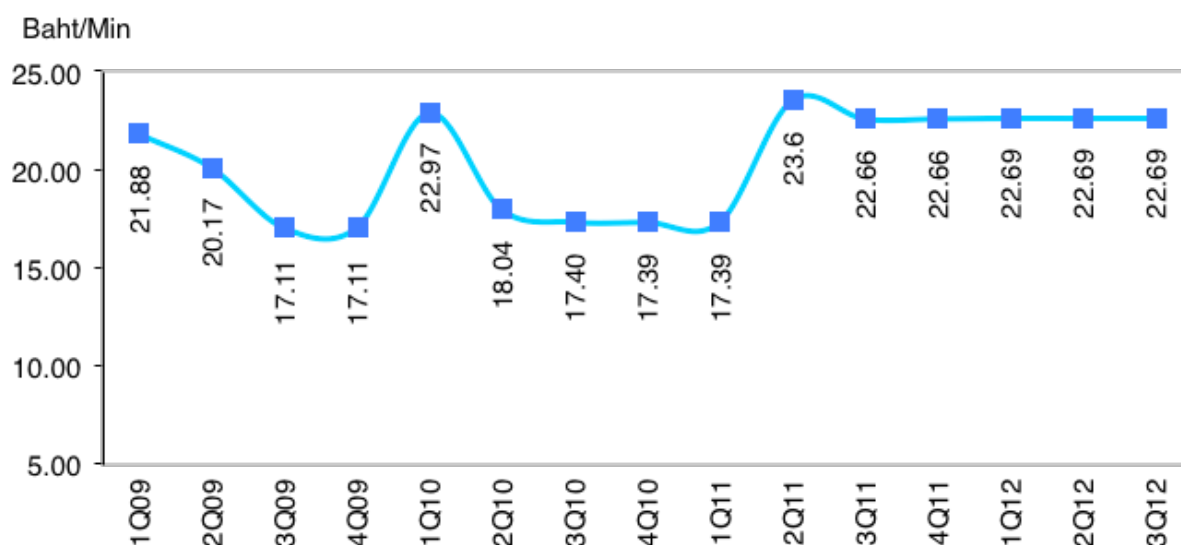
Service provider	Numbers with IDD Prefix	
	Via TDM technology	Via VoIP technology
CAT Telecom Public Co.,Ltd (CAT)	001,100	009,00900
TOT Public Co.,Ltd. (TOT)	007	008
DTAC Network Co.,Ltd (DTAC Network)	004	-
AIN Globalcom Co.,Ltd (AIN)	005	00500
True International Communication Co.,Ltd. (TIC)	006	00600
Triple T Global Net Co.,Ltd. (Triple T)	102	-

Source: Bureau of Fee and Rate of Service Charge in Telecommunication Business and
Bureau of Telecommunications Numbers Allocation

2) Providers without the IDD Prefix divide into two groups. First group is International calling card services provider called type 1. There are 50 licensed providers. Second group is VoIP internet providers without dialing. This group has around 60 providers.

Considering the average charge rate of the international telephone service providers with IDD Prefix in the 3rd quarter of 2012 is equal to the average charge in the 2nd quarter of 2012 at 22.69 baht per minute, as shown in Chart 21. In the 3rd quarter of 2012 providers with the lowest average distance international calls charge by region is TIC (006) with average charge rate at 7.97 baht / minute. The reminding providers are TOT (008) with average charge at 15.04 Baht / min, CAT Telecom (009) at 19.81 Baht / min, Triple T (102) at 21.35 Baht / min and TOT (007) (24.64 Baht / min) while CAT Telecom (001) charged at 29.38 Baht / min, DTAC (004) at 29.77 Baht / min and AIN (005) at 34.20 Baht / min. These showed that overall of an average international long distance phone charges is relatively stable compared to the 2nd quarter of 2012.

Chart 21 Average rate of International telephone charges



Note : Average rate of this service is rate of call to destination in Asia, Europe, North America and Middle East

Source : Bureau of Fee and Rate of service charge in Telecommunication Business

For market conduct of the international telephone service found that in the past they continued to use promotions particularly in price competition and some had taken the advantage by bundle with other services.

2. Analysis on wholesale service market competition (Wholesale Market)

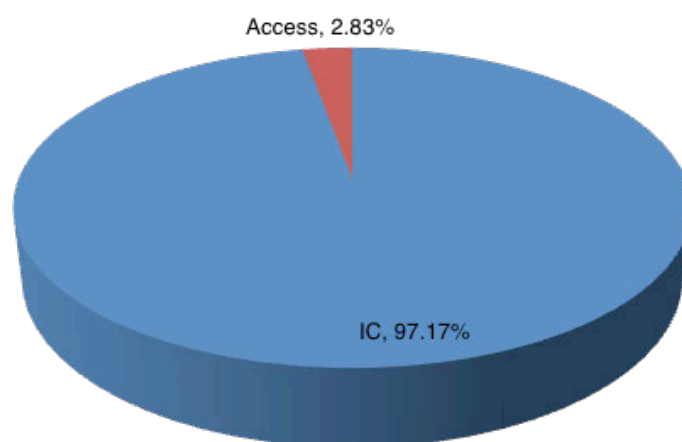
The Office of NBTC had conducted competition analysis by using Best Available Evaluation techniques because of the limitation in data collection. This analysis lead to the conclusion of the wholesale telecommunications services which referred to the network infrastructure network (Network infrastructure or Radio Infrastructure) such as base station (Cell site) Antenna (Mast) as well as the use of areas / facilities needed are included wholesale services, which may be divided into the two main groups.

1) wholesale services to downstream service providers without their own network services such as telecommunication network access

2) wholesale services to Downstream service provider of a network of their own which the purchase / sale are interconnection service providing or interconnection service requesting.

The total market value of wholesale telecommunications services are shown in Chart 22.

Chart 22 Percentage of Market value on Wholesale telecommunications services in 3rd quarter of 2012



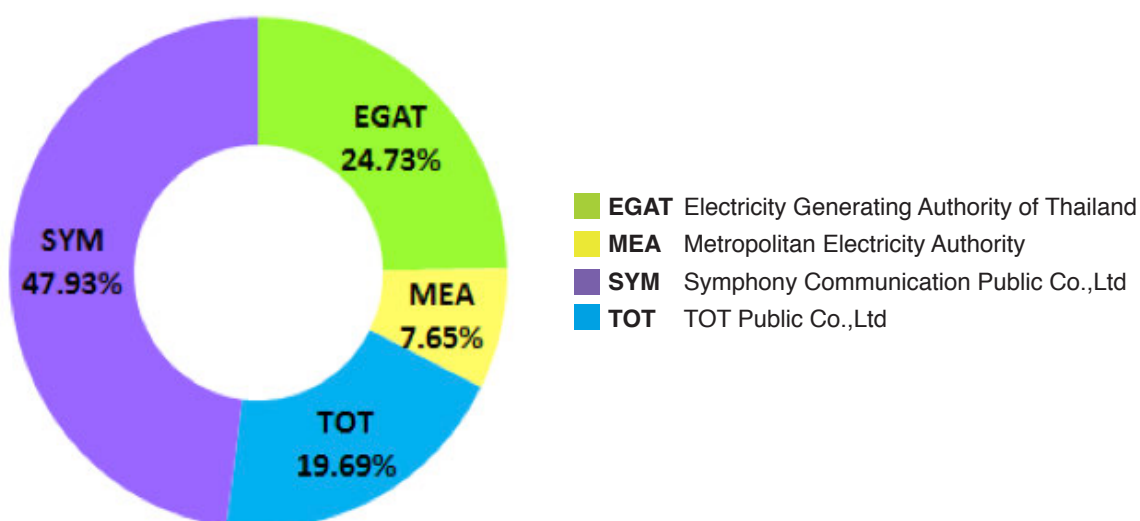
Source: Bureau of Telecommunication Network Access and Interconnection

1) Telecommunications network access

According to the NTC's Notification on telecommunications network access and interconnection in 2006, telecommunication network access refers to access to telecommunications networks by telecommunications operators, which operate under technical and commercial agreement in order to access telecommunications services or provide telecommunications services via a telecommunications network including the wireless telecommunications transmission services providing to other carriers (Roaming) under the rules and procedures prescribed by the NBTC. The market share of the return on the telecommunications networks access in the 3rd quarter of 2012 as shown in Chart 23.

It may be concluded that the network access is the activity which a provider accesses to telecommunications network of another provider who owns the network for providing services to his subscribers.

Chart 23 Market share of Return on Telecommunication network access service in 3rd quarter of 2012



Source: Bureau of Telecommunication Network Access and Interconnection

2) Interconnection Offerring

The interconnection can be divided into three main basic services according to the communication direction and the interconnection, which are the Call Termination, Call Transit and Call Origination, as follows detail.

(1) Call Termination service is to deliver the subscriber's voice of a network to another network's subscriber considered basic services on the interconnection has occurred. It needs to have this service because the service will be met 'any to any connectivity' principle.

(2) Call Transit. This is a service to forward the signal from one network to another in order to making the signal forwarded through that network to the destination.

(3) Call Origination or called out service to another network. Typically Call Origination services will occur when a network without his own network provide service to his subscribers, so it is necessary to retrieve the other network for providing call out to his network.

In addition, regarding to the type of communication, these services can divide into two main types.

(1) Voice communication type (Voice) for international call and receive calls both domestic and abroad.

(2) Non-voice communication type, for example photo, text and data.

The NBTC has regulated the rates of interconnection charged from the telecommunications network by setting reference rate in case that the provider can not agree with any rate as shown in Table 31.

Table 31 Reference Rate of Telecommunication Network Interconnection

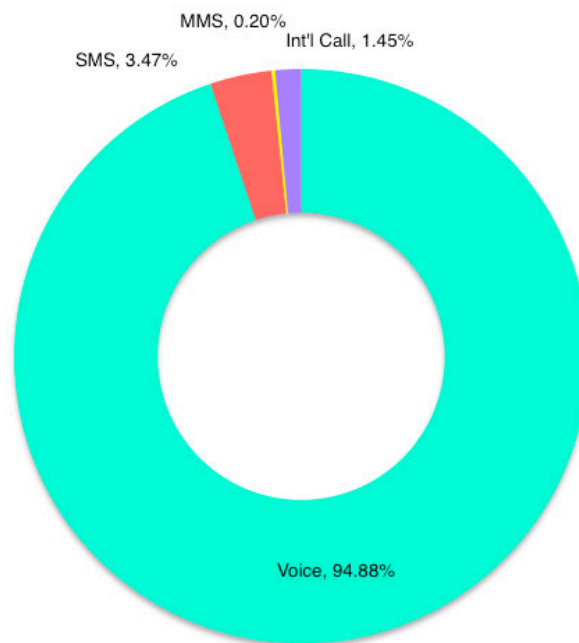
	Mobile	Fixed line
Call Originate	0.50	0.49
Call Terminate	0.50	0.36
Call Transit	0.20	0.08

Source: Bureau of Telecommunications Network Access and Interconnection

Note: NTC's Notification on 20 April 2010

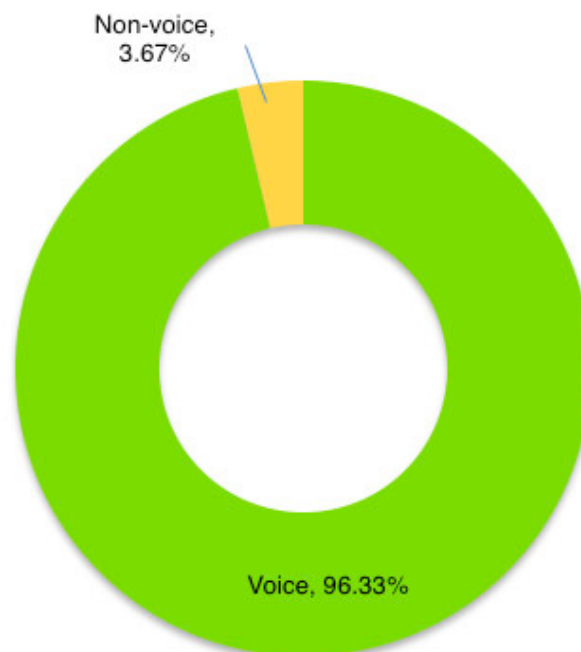
Although communication between subscribers in the retail level began to communicate via Non-voice channel of mobile services increasingly, market value of the interconnection mostly remained concentrated in domestic voice services up to 94.88 percent, followed by SMS service, international call services and MMS services which contributed to 3.47 percent, 1.45 percent and 0.20 percent, respectively, as shown in Chart 24. Moreover, considering the demand for cross the network services, proportion of cross network through voice services is at 96.33 percent, while the use of cross network service via non voice is only 3.67 percent, as shown in Chart 25.

Chart 24 Percentage of Market value by the interconnection type of I in 3rd quarter of 2012



Source: Bureau of Telecommunications Network Access and Interconnection

Chart 25 Ratio of Cross Network Access in 2012



Source: Bureau of Telecommunications Network Access and Interconnection

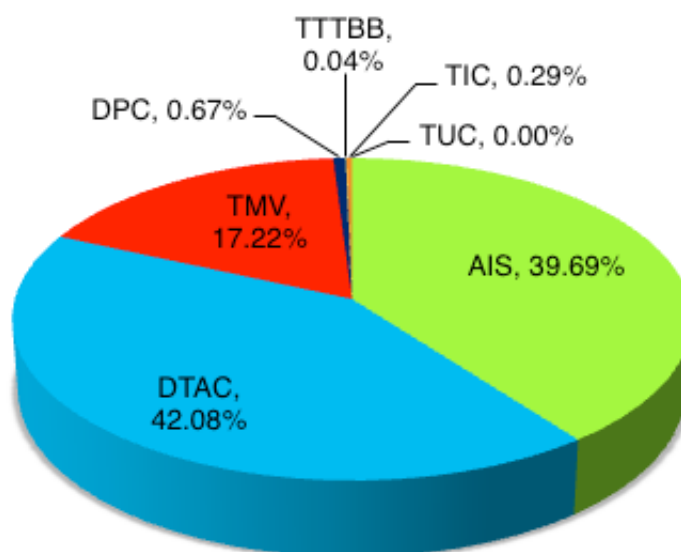
Regarding the proportion of revenues from interconnection charge fee, the service providers submitted to the Office of NBTC in 2nd quarter of 2012, found that major service providers who have their own network, were mobile service providers with highest market shares; they are Advanced Info Service Public Co.,Ltd., Total Access Communication Public Co.,Ltd. and True Move Co.,Ltd. with market share of 39.69 percent, 42.08 percent and 17.22 percent, respectively. For other small service providers, Digital Phone Co.,Ltd., True International Communications Co.,Ltd. and Triple T Broadband Co.,Ltd. had market share of interconnection 0.00 percent, 1.11 percent and 0.03 percent, respectively, as shown in Chart 26.

For the expenditures of the interconnection found that, in the third quarter of 2012 proportion of these expenditures were close to revenues from interconnection. The top three of service providers with highest proportions were Advanced Info Service, Total Access Communication and True Move at 42.28 percent, 37.90 percent and 18.68 percent respectively.

For other providers, True International Communications, Digital Phone and Triple T Broadband had interconnection expenditure accounted for 0.00 percent and 1.11 percent and 0.03 percent, respectively, as shown in Chart 27.

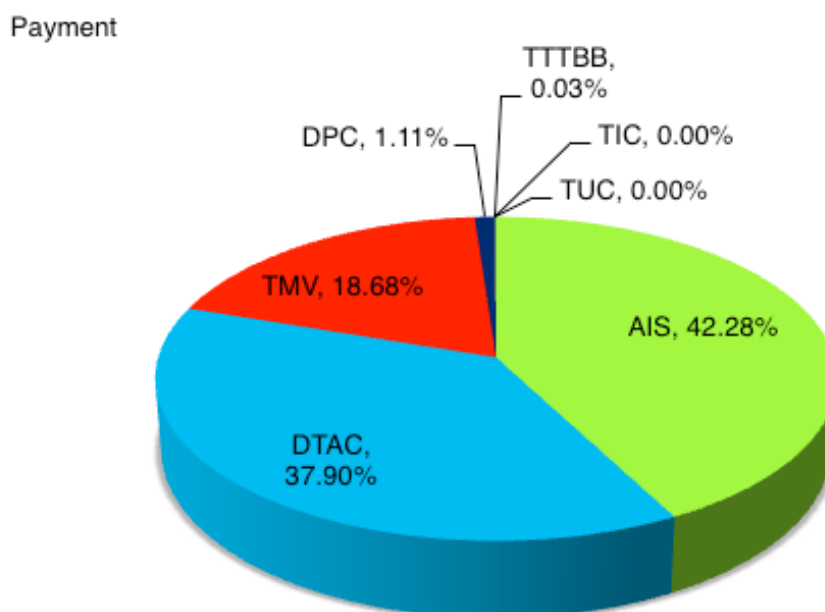
Chart 26 Percentage of Expenditure in interconnection charges devolved by operators in 3rd quarter of 2012

Receive



Source: Bureau of Telecommunications Network Access and Interconnection

Chart 27 Proportion of Revenue from interconnection by operator in 3rd quarter of 2012



Source: Bureau of Telecommunications Network Access and Interconnection

3. Regulation of telecommunications business for creating free and fair competition.

In 2012, the NBTC was assigned the Office of NBTC to conduct the regulation of telecommunications business in order to creating free and fair competition covering setting the fees and service charges in telecommunications business, preventing operators from higher service billing from customers higher than the rate NTC had set, as well developing and adjusting the guidelines to drive the strategy for development and promotion to create free and fair competition., under the Telecommunications Master Plan No. 1. B.E. 2555-2559 (2012-2016) as follows.

1) Issued the NBTC's Notification regarding cancellation of the temporary rate of telecommunications services under the NBTC's Notification on Maximum rate of advanced services fee and services billing in telecommunications B.E.2549(2006) and it was promulgated in the Royal Gazette, No. 129, Special 152, on October 5, 2012.

2) Issued the NBTC's Notification on Maximum Rate of Telecommunications Services for Domestic Mobile Services on Voice B.E. 2555 (2012). This is to promote for effective competition, be fair rate to the licensee and their subscribers and in line with their cost of services. It was promulgated in the Royal Gazette, No. 129, Special 62 (d), on April 3, 2012.

3) Issued the NBTC's Notification on rules and procedures for reporting on ledger accounting in telecommunications business. In order to promote free competition in the telecommunications business, the Office of NBTC has issued guidelines for the preparation of ledger accounting in telecommunications business for transparency in the costs of collection services, retail and wholesale services in telecommunications business and for investigation and prevention anti-competitive behavior and discourage cross-subsidy in telecommunications services. It was promulgated in the Royal Gazette, No. 129, Special 88, on June 1, 2012.

4) issued the NBTC's Notification on Telecommunications license fees. It was approved by the Sub-committee on Telecommunications Law and Regulation Integration and adjustment meeting. It had held the process of public consultation on the draft of NBTC's Notification on the telecommunications license fee on November 5, 2012. All stakeholders were invited to attend the hearing, including the telecommunications business licensee, Internet services licensee, consumer representative and academics, etc., and It is promulgated in the Royal Gazette, No. 129, Special 197, on December 28, 2012

5) issued the NBTC's Notification on the prohibition of actions having the Nature of Foreign Domination B.E. 2555 (2012) which is the amendment of the NBTC's Notification on the prohibition of actions having the Nature of Foreign Domination B.E. 2554 (2011) in accordance with the current situation. This NBTC's Notification was promulgated in the Royal Gazette No.129, Special 117, on July 23, 2012.

Regulation of Telecommunications Business

1. Regulation of the Telecommunications and Radio Communications Business

In the year 2012, the NBTC had regulated the telecommunications and radio communications business to comply with the Frequency Allocation Act, B.E.2553 (2010) the Telecommunications Business Act B.E. 2544 (2001) and the Radio communications Act B.E. 2498 (1955), and other amendment as well as rules, regulations, NBTC's Notifications and terms of licenses so that all parties could follow without damage to others by monitoring the operation of telecommunication operators including radio communications and warning issuance in case of non-compliance and conducting the investigation on the facts and the dispute honestly and impartially which would make the operators compete freely and fairly as well as provide quality service to subscribers at reasonable prices as shown in Table 32.

Table 32 Number of Telecommunication Business Regulation and Radiocommunications Business Cases in 2012

Telecommunication Business Regulation in 2012			
1.	Conducting inquiry from matters of fact of telecommunications operators	No. of case	1 case
2.	Investigating and/or requesting actions according to petitions received from telecommunications operators	No. of case	10 cases
3.	Regulating telecommunications operators to comply with the NBTC's Notification, Rules and Regulations	No. of case	9 cases

Source: Bureau of Telecommunications Business Regulation

2. Regulation on the use and interconnection of telecommunications.

The NBTC has monitored the use and interconnection of telecommunications networks in order to thoroughly communicate in all types of services. Subscribers of the network can communicate to each other and operators receive a fair competition among them both with and without their own network. During 2005 to 2001 there were 34 contracts of telecommunication network access approved by NBTC (including revised contracts) and 34 contracts of telecommunications network interconnection approved by the NBTC (including revised contracts) This can generate the point of interconnection across the country 98 points in total.

The NBTC has still analyzed diagnostic procedures, dispute solution, preliminary inquiry of the dispute arising from telecommunications network access and interconnection. There is the Bureau of Infrastructure ,Telecommunications Network Access and Interconnection. This center is the center for complaint and coordinates with all parties in the dispute resolution process regarding telecommunications network access and interconnection which produced the performance in 2012 as follows:

1) Offers for telecommunications network interconnection

According to the NTC's Notification on telecommunications network access and interconnection B.E. 2549 (2006) requires that the licensees with their own networks have to submit offers for telecommunications network access and interconnection to NBTC for consideration and approval prior to bring into negotiations with others licensees to access and interconnection. Under the framework of such offerings after making a contract, that contract has to submit to NBTC for approval. In 2012 there were 4 offers for telecommunications network interconnection approved by NBTC on technical and legal aspect. They divided into 1 offers for licensee and 3 revised offers for interconnection. Currently there are 16 approved offers for telecommunications network interconnection, as shown in Table 33.

Table 33 Approved offers on Telecommunications Network Interconnection in 2012

No.	Company	Date of Approval
1	TOT Public Co.,Ltd.	1 September 2006
2	TT & T Public Co.,Ltd.	1 September 2006
3	Triple T Broadband Public Co.,Ltd.	1 September 2006 28 March 2012 (Revised)
4	Advance Info Service Public Co.,Ltd	1 September 2006 22 April 2008 (Revised)
5	Digital Phone Co.,Ltd.	1 September 2006
6	True Corporation Public Co.,Ltd.	1 September 2006
7	True Multimedia Co.,Ltd.	1 September 2006
8	Tue Move Co.,Ltd.	1 September 2006
9	Total Access Communication Public Co.,Ltd.	1 September 2009 14 February 2008 (Revised) 3 November 2010 (Revised)
10	CAT Telecom Public Co.,Ltd.	17 December 2007 12 June 2012 (Revised)
11	True Internet Gateway Co.,Ltd	17 January 2008
12	True Move Co.,Ltd	15 January 2009
13	Digital Phone Co.,Ltd.	17 June 2009
14	True Universal Convergence Co.,Ltd.	26-27 August 2009 13 September 2012 (Revised)
15	TOT Public Co.,Ltd.	20 January 2010
16	Otaru World Corporation Co.,Ltd.	23 April 2010

Source: Bureau of Telecommunications Network and Interconnection, Office of the NBTC

2) Offers for telecommunications network access

In 2012 there were 1 offer for telecommunications network access receive the technical and legal approval by the NBTC. From 2006 to 2012, there are 17 offers for telecommunications network access in total, as shown in Table 34.

Table 34 Approved offers of Telecommunications Network Access in 2012

No.	Company	Date of Approval
1	True Corporation Public Co., Ltd	1 September 2006
2	True Multimedia Co.,Ltd.	1 September 2006
3	True Move Co.,Ltd.	1 September 2006 6 October 2008(Revised)
4	BMCL Co.,Ltd	28 November 2007
5	CAT Telecom Public Co.,Ltd.	17 December2007
6	Advance Info Service Public Co.,Ltd	17 January 2008 21 August 2008 (Revised)
7	True Internet Gateway Co.,Ltd.	17 Jnuary 2008
8	Total Access Communication Public Co.,Ltd.	14 February 2008
9	Sawasdee Shop Co.,Ltd.	14 February 2008
10	Electricity Generating Authority of Thailand	6 March 2008
11	Digital Phone Co.,Ltd	23 June 2008
12	Triple T Broadband Public Co.,Ltd.	16 October 2008
13	Bangkok Metro Network Co.,Ltd.	6 May 2009
14	True Universal Convergence Co.,Ltd	23 September 2009 and 24 September 2009
15	Justel Network Co.,Ltd	14 March 2010
16	Metropolitan Electricity	26 January 2011
17	TT&T Public Co.,Ltd.	28 August 2012

Source: Bureau of Telecommunications Network Access and Interconnection

The above reference offers of telecommunications network access and interconnection have already been publicized by each licensee, including on the NBTC's website. In addition, the licensee has to facilitate the access to their reference offers on telecommunications network access and interconnection without any unreasonable charges for the documents or administrative works.

3) Contracts of Telecommunications Network Interconnection

After the reference offer for telecommunications network interconnection had been approved by the NTBC, the licensee with own network has a duty to negotiate for arranging the contract for telecommunications network interconnection within the framework of reference offer for telecommunications network interconnection approved by the NBTC. After both parties have reached an agreement and the contracts, it must be submitted to the NBTC for approval, according to the provision set forth in the NBTC's Notification on Telecommunications Network Access and Interconnection B.E. 2549 (2006).

In 2012, the NTBC had approved 9 contracts for the telecommunications network interconnection, which the operators had done the negotiation within the framework of reference offer for telecommunications network interconnection as shown in Table 35.

Table 35 Contracts of Telecommunications network interconnection were approved in 2012

No.	Company	Date of Approval
1	Total Access Communications	14 February 2012
	True Universal Convergence Co.,Ltd	
2	True Universal Convergence Co.,Ltd	28 March 2012
	True International Communication Co.,Ltd	
3	True Move Co.,Ltd	3 April 2012 (Revised)
	True International Communication Co.,Ltd	
4	True Universal Convergence Co.,Ltd.	23 April 2012
	Total Access Communications Public Co.,Ltd.	
5	True Move Co.,Ltd	23 April 2012
	True Universal Convergence Co.,Ltd	
6	True Move Co.,Ltd	8 May 2012
	CAT Telecom Public	
7	Advanced Info Service Public Co.,Ltd.	15 May 2012 (Revised)
	CAT Telecom Public Co.,Ltd	
8	True Universal Convergence Co.,Ltd	15 May 2012
	True Move Co.,Ltd	
9	CAT Telecom Public Co.,Ltd	1 August 2012
	True International Communication Co.,Ltd	

Source: Bureau of Infrastructure Use and Interconnection

Note: Acces Provider

Access Requesting Operator Operator

4) Contract of telecommunications network access

When offer for telecommunication network access has been approved by the NBTC, the licensee with own network has duty to publicized the offer in general and if any operator requests to telecommunications network access, the licensee with own network and the requestor have to negotiate for making a deal. If both parties can agree with and compete the contract of telecommunication network access. The contracts will be submitted to the NBTC for approval as set out in the NBTC's Notification on telecommunications network access and interconnection B.E. 2549 (2006). In 2012, there were 4 contracts of the telecommunications network access has been approved as shown in Table 36.

Table 36 Approved Contracts for Telecommunications Network Access in 2012

No.	Company	Date of Approval
1	Electricity Generating Authority of Thailand	28 March 2012 (Revised)
	TT & T Public Co.,Ltd	
2	True Move Co.,Ltd.	3 April 2012 (revised)
	True Internet	
3	Meteopolitan Electricity Authority	12 June 2012
	United Information Highway	
4	Meteopolitan Electricity Authority	4 July 2012
	Super Broadband Network Co.,Ltd	

Source: Bureau of Basic Infrastructure Telecommunications Network Access and Interconnection

Note : Acces Provider

Access Requesting Operator

The licensee for telecommunications network access and interconnection are required to publicized the contract of telecommunications network access and interconnection to ensure transparency and fairness among all the licensees. It is also published on website of the Office of NBTC.

5) Point of telecommunications interconnection

The Point of interconnection (POI) is the point which licensee with own telecommunications network offers in the offer for telecommunications network interconnection so that licensees, can request to interconnect at the point. At current, there are 98 points of interconnection as shown in Table 37.

Table 37 Number of Point of Interconnection (POI) in 2012

No.	Operator	No. of POI
1	Advance Info Service Public Co.,Ltd	16
2	Total Access Communication Public Co.,Ltd	11
3	True Corporation Public Co.,Ltd	4
4	True Move Co.,Ltd	5
5	True Internet Gateway Co.,Ltd	2
6	TOT Public Co.,Ltd.	13
7	CAT Telecom Co.,Ltd	11
8	Digital Phone Co.,Ltd	9
9	TT & T Public Co.,Ltd	9
10	Triple T Broadband Co.,Ltd	10
11	True Univeral Convergence	7
12	Otaru World Corporation	1
	Total	98

Source: Bureau of Infrastructure Telecommunication Network Access and Interconnection

6) Dispute resolution process

In 2012, the Sub-Committee on Dispute Resolution had received 2 disputes and brought into the process of consideration and another 2 disputes brought into process of trial for truth finding assigned by the NBTC as shown in Table 38.

Table 38 Reception of Disputes into Consideration Process

Dispute	Between		Dispute Issue	Status
	Petitioner	Respondent		
1/2011	True International Communication Co.,Ltd	Advance Info Service Public Co.,Ltd.	How much the rate of Interconnection fee between the petitioner and responder should be	NBTC had the determination on the dispute issue on 28 August 2012
2/2011	True International Communication Co.,Ltd.	Total Access Communication Public Co.,Ltd	<p>Dispute issue 1: the Sub-Committee rule out reception of the petition into consideration process to determine if the petition is in line with the announcement of NTC on telecommunication network Access and Interconnection?</p> <p>Dispute issue 2: Has the negotiation concerning the terms and conditions in contract of interconnection between the petitioner and the respondent been completed and on the basis of honest intention.</p> <p>Dispute issue 3: How much the rate of interconnection fee should be?</p>	The petitioner opposed the Sub-Committee's determination under the Article112 of the NTC announcement on Telecommunications Network Access and Interconnection. This Opposition is in the Sub-Committee's consideration process
Trial1/2011	True Move Co.,Ltd. ...	1. Advance Info Service Public Co.,Ltd. And Total Access Communication Public Co.,Ltd.	Request to adjust or change the rate of interconnection fee	At the meeting 21/2012, NBTC has determined to dismiss the petition in order to transfer this petition to the consideration process of Joint Committee under the contract of Telecommunication Network Interconnection and inform NBTC about the outcome of the consideration within 30 days
Trial 1/2012	True Move	1. Advance info Service Public Co.,Ltd and 2. Total Access Communications Public Co.,Ltd.	Request to rule out for adjustment or change the rate of telecommunication network interconnection fee or approval to repeal the interconnection contracts	In consideration of dispute issue determination

Source: Bureau of Infrastructure, Telecommunication Network Access and Interconnection

In 2012, the NBTC was also assigned the Office of NBTC prepared the order regarding regulation of telecommunication network access is Order of the National Broadcasting and Telecommunications Commission No.84/2012 on Setting Rate of Return on telecommunications network interconnection as a reference rate which was promulgated in the Royal Gazette No. 129, Special 138 on September 7, 2012.

Development guidelines. Rules and regulations relating to the telecommunications regulators.

In 2012, the NBTC assigned the Office of NBTC setting on criteria. rules and regulations related to the regulation of telecommunications and radio communication business as summary shown in Table 39.

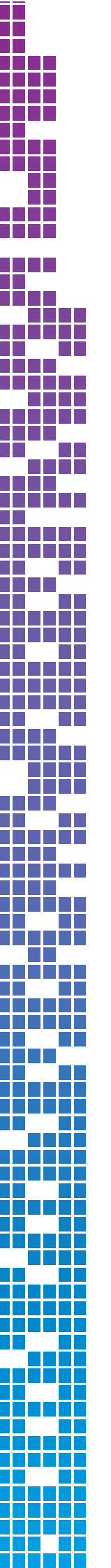
Table 39 Summary of NBTC's Notification related to Telecommunications and Radiocommunications Business in 2012

Announcement	Number
Technical standard of telecommunication devices and equipment	10
Spectrum allocation and mangement	3
Telecommunication business regulation	3
Radiocommunication business regulation	1
Regulation on fee and rate of service charges in telecommunication business	3
Providing the thorough basic telecommunication services and social services	2
Telecommunication network access and interconnection	1
On promoting competition	1

Source: Bureau of Telecommunication Law

Consumer protection in telecommunications business

In 2012, the NBTC has driven for development of rules for mediation in the telecom in order to increase alternative dispute resolution for consumers considered as a pioneer for dispute resolution system in Thai telecommunications sector. As a result, the NBTC has issued the regulation on dispute mediation process between the telecommunication business licensee and the complainant which was promulgated in the Royal Gazette No.129, Special 148 (d) on September 27,2012 and set up dispute resolution center which was supported by the Office of Judiciary for training the Office of NBTC staff across the country to be familiar with dispute mediation process and prepare for receiving the disputes complaint as well as fully committed to consumer protection after the launch of 3G mobile services, which focused on alternative dispute resolution for consumers by creating a mechanism to enforce the NBTC's regulations on dispute mediation process between the telecommunication business licensee and the complainant. When a complaint filing into NBTC, there is effective dispute resolution system and procedure to deal with.



In addition, the NBTC has issued the NBTC's Notification regarding maximum rate of telecommunications services for domestic mobile phone service on voice B.E. 2555 (2012) and was promulgated in the Royal Gazette. As a result, mobile carriers do not charge more than 0.99 baht per minute, and since January 2556, the fee will be less than 0.99 baht per minute.

In 2012, the NBTC assigned the Office of NBTC responsible for consumer protection in telecommunications business as the following activities,

1. To open for complaint and educate the public offsite. The unit has provided mobile unit for receiving complaints from people and organized the activities and campaign to educate consumers about consumer rights in telecommunications business in order to aware of their right as well as guiding consumers about formal complaints channel concerning the use of telecommunications services during organising the big three exhibition events as follows,

1) "Cheap-Good-Free" at the exhibition center in Department of Export Promotion during 14-30 September 2012.

2) The 17th National Book Fair at Queen Sirikit National Convention Centre during 18-28 October 2012.

3) The 26th Discovery Thailand at Impact Muang Thong Thani, during 1-4 November 2012.

2. Educating the consumer rights in telecommunications business through the annual publication of 2012 by producing and publishing in media through various channels, such as books, magazines, newspapers and publications as a public relations and proactive communications so that consumers aware of their rights and duties.

3. Producing books and other forms of media for educating the consumer protection in telecommunications These came in the form of calendar, diary and note pad for the year 2013 as channels to promote consumer protection and to enhance public awareness of their rights to use the telecommunication services. Moreover, the NBTC also published the books called "The Compilation of Consumer Protection Laws in Telecommunications Business" in order to distribute to the general public and interested persons.

4. Creating "Newsletters for the year 2012" as a way to publicize information on the rights and security in the use of telecommunications to the general public with the purpose of dissemination concerning the movement and situation in telecommunication both in domestic and international as well as technological advances which have the impact on the lives of service users. Resolution / Order that are useful in telecommunications consumer protection including the dissemination of knowledge about their rights and security in the use of telecommunications technology to the organizational networks and the general public and to provide access to information and public agencies involved in consumer protection in telecommunications. In 2012, the NBTC had published three editions of the newsletters, which has been accepted and embraced by the agencies involved as well as the general public.

5. Educating the rights of telecommunications consumers via radio both in production and dissemination through media to the general public in regions across the country such as dissemination through spot radios, Jingle, ID Station, short documentary and news reporting as channels to public communication and proactive public relations so that consumers aware of their rights and duties.

6. Providing information and knowledge concerning the consumer rights in the telecommunications business through outdoor media which is still on the process of dissemination of knowledge about consumer rights in telecommunications business as well as public relation concerning the roles of the Office of NBTC on consumers protection and channels to file the complaint about the problems found from the use of telecommunications services to consumers in telecommunications sector and the general public in the provinces across the country through 4 types of outdoor media as follows,

1) 3 Large Bill Boards which were installed at the roadside of the main route toward various regions or in major provinces in different region.

2) Advertising banner in the back of public bus. The banners were placed in the back of 100 public service bus in 2 main routes from a province in one region to another.

3) Banner beside the bus or minibus. Placed beside the bus or a minibus service in town of provinces in 3 region, totaling 150 units.

4) Vinyl banners. Vinyl banners installed in 71 provinces (excluding Bangkok and nearby province including Nonthaburi, Samut Prakan, Pathum Thani, Nakhon Pathom and Samut Sakhon) 15 parcels per province operated for 2 months from November to December in 2012.

7. Developing and adjusting a website for complaints and consumer protection in telecommunications business.

8. Creating “Mobile Phone in Children’s Hands comic” in audio format by modifying existing contents suitable for the type of audio media, voice recording and providing voice dub naturally and suitable for each character as well as sound effect corresponding to the subject and makes it interesting and packed onto a DVD and CD distributed for visually impaired groups and general public including agencies that provide services to disabled people and community radios. As follow,

- 1) Centre for Special Education in 13 School Districts.
- 2) Centres for in Provincial Special Education, totaling 63 centers
- 3) Offices of Non-formal Education Learning Centre in 74 provinces across the country.
- 4) School for Special Education, totaling 40 schools.
- 5) Rajabhat University, which provide service for disabled people, 40 universities in total.
- 6) Center for Special Education in 8 Rajabhat Universities.
- 7) University Laboratory schools under Rajabhat University, 21 in total.
- 8) Private agencies serving for visually impaired groups, 11 in total.
- 9) Joint learning school under the Bangkok Metropolitan Administration, 96 in total.
- 10) Universities that provide services to disabled people , 38 in total.
- 11) Core school for joint learning, 107 schools in total
- 12) Sudy Center which provide education to disabled people, 118 in total
- 13) Public agencies serving for visually impaired groups, 11 in total.

14) 71 Public libraries

15) Public library in Celebration of High Royal Princess, 82 in total.

16) Other agencies providing media services to disabled people, 45 in total.

17) Community radio and others radio media across the country, 500 in total.

Technology and basic infrastructure in telecommunications business management

In 2012, the NBTC had conducted the regulation on exercising rights-of-way in erecting poles, laying ducts or cables, and installing any accessories for providing telecommunications services by granting the approval to the request of the licensee on exercising rights-of-way in erecting poles, laying ducts or cables, and installing any accessories for providing telecommunications services in accordance to the NBTC's Notification on Rules and Procedures on exercising rights-of-way in installing poles, laying ducts or cables, and installing any accessories for providing telecommunications services. The NBTC had approved the expansion of basic telecommunications network to 9 companies who submit 1,941 combined requests, in 17,276 route and 3,053 telecommunications exchanges including main routes for installing fiber optic cables in distance of 88,658.86 kilometres and expanding the service through copper cable network in distance of 24,442.03 kilometres as combined distance of installing network 113,100.89 kilometres in total.(as of 31 December, 2012) as shown in as shown in Table 40 and Chart 28.

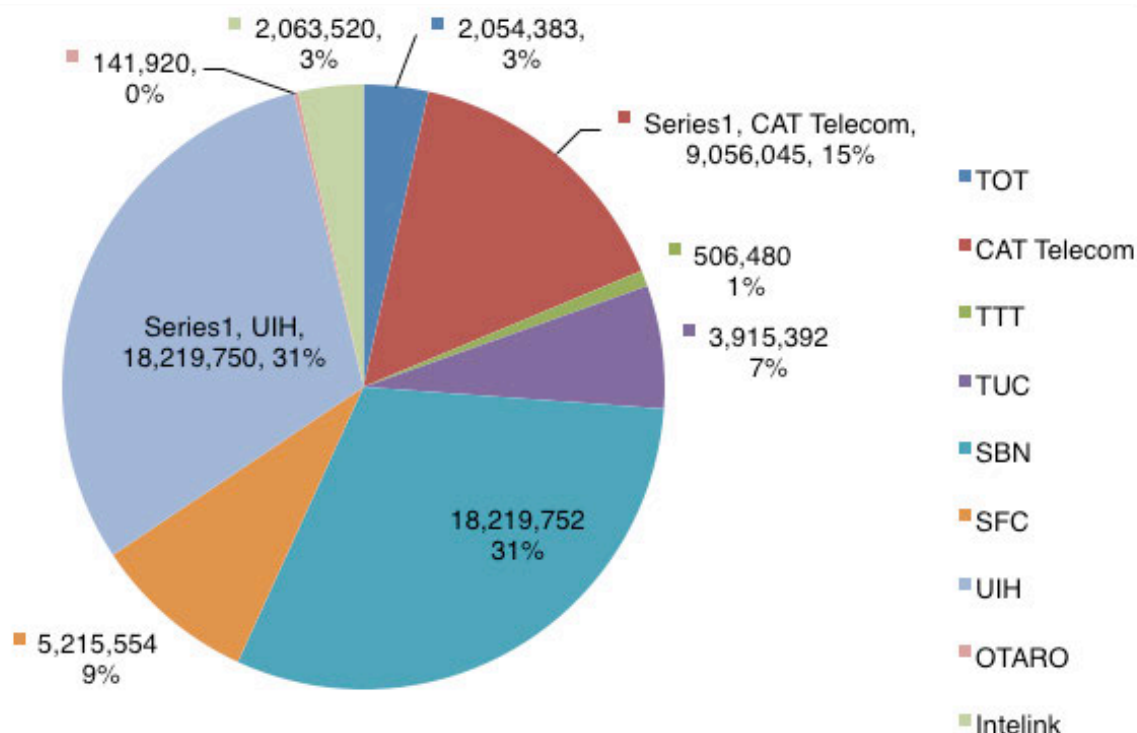
Table 40 Telecommunications network coverage across the country in 2012

No.	Company	Outcome of the Consideration on the request to expanding the scope of basic telecommunication network				
		Number of request	Number of routes	Exchange	Distance (kms)	
					OFC	COPPER
1	TOT Public Co.,Ltd (TOT)	120	636	11	2,426.03	56.04
2	CAT Telecom Public Co.,Ltd (CAT)	290	1,887	6	11,228.67	9,000
3	Triple T Broadband Public Co.,Ltd (TTT)	171	469	568	2,208.47	1,135.77
4	True Universal Convergence Co.,Ltd. (TUC)	202	1,789	2,425	5,142.25	22,926.25
5	Super Broadband Network Co.,Ltd (SBN)	514	5,529	-	22,651.60	-
6	Symphony Communication Co.,Ltd. (SFC)	324	4,182	-	8,858.24	-
7	United Information Highway Co.,Ltd. (UIH)	304	2,555	43	35,591.56	314.97
8	Otaru World Corporation Co.,Ltd.	9	155	-	280.84	-
9	TCCT Technology Co.,Ltd.	7	76	-	271.20	-
	ToTal	1,941	17,278	3,053	88,658.86	24,442.03

Source: Bureau of Academic and Telecommunication Resource Management, Office of NBTC

Data as of 31 December 2012

Chart 28 Telecommunication Network Expansion of Operators in 2012



Source: Bureau of Academic and Telecommunication Resource Management, Office of NBTC

Distribution on Universal Basic Telecommunications Services and Social Services

Providing a community Internet center (USO NET).

Providing universal basic telecommunications services and social services is one of main missions of the Office of NBTC in accordance to the Telecommunications Act B.E. 2544 (2001), Section 17, and Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E. 2553 (2010) Section 50.

According to The NBTC's Notification on Rules, procedures and Provisions for providing Universal Basic Telecommunications Services and Social Service Phase 1 B.E.2549-2552 (2006-2009), which focuses on the licensees have to providing universal basic telecommunications services in rural areas, areas with low return on investment. areas with no service or area with service but not enough to meet the needs of the service among the subscribers academies, religious place, hospitals and agencies that provide social assistance.

To bridge the gap and disparities in access to basic telecommunications services (Digital Divide), the National Telecommunications Commission (NTC) had issued the NTC's Notification on Rules, Procedures and Provision on providing Universal Basic Telecommunications Services and Social Services Phase 2, 2010 (B.E.2553), and action plan on providing universal telecommunications services and social services for the year of 2012, and setting the mission and goals of providing USO services for Phase 1 across the country, especially in remote areas. For disadvantaged groups, the NBTC also set

goal for telecommunications services by the expansion of public telephone services in public schools, religious places and hospitals, encouraging to organize a community internet service in the target area covering both voice and data service. Mission and goals for the licensee to operate universal services are as follows:

1. Providing public telephone services ‘Number one for one community by focusing on rural and remote areas.
2. Providing community internet service by the promoting to set up centers for Internet community services
3. Providing public telephone services and fixed line telephone with ‘one number for one public school’ goal as well as setting up centers for school internet services.

In 2010, the NTC has approved a plan to provide universal basic telecommunications services and social services (USO) by the 6 telecommunications service licensee as follows,

- 1) CAT Telecom Public Co., Ltd. (CAT).
- 2), TOT Public Co., Ltd. (TOT).
- 3) Triple T Broadband Co., Ltd. (3BB).
- 4) Jastel Networks (JASTEL).
- 5) Global AIN Co., Ltd. (AIN).
- 6) Super Broadband Network Co., Ltd. (SBN).

In 2012, the Office of NBTC has conducted the plan to provide universal basic telecommunications services and social service in Phase 2 and the results of licensees’ operations carried out under terms and conditions of the USO, Phase 2, as shown in Table 41 below.

Table 41 Summary of Results of licensees’ operations carried out under the terms and conditions of the USO Phase 2 in 2012

Mission	Goal	Completed operation	Percentage
1. Maintenance USO telephone phase 1	29,745 numbers	29,745 numbers	100
2. Installing public telephone in community	2,359 communities	1,721 communities	73
3. Providing center for school internet service	520 centers	220 centers	42
4. Providing center for community internet and center for social internet*	416 centers	31 centers	7

Source: Bureau of Universal Basic Telecommunication Services and Social Services

Note: * The Office of NBTC has assigned licensees to conduct community internet center project in service area list in September 2012 which should complete within 1 year. Data as of January 2013

Results of operations under plans for distribution universal basic telecommunication services and social services in 2012.

Plan for providing universal basic telecommunications services and social services 2012 -2016 by setting the goal of 5 year operation is divided into two dimensions, as shown in Table 42.

Table 42 Goals on Providing Universal Basic Telecommunications Services under the 5 years plan

Service area	Social service
1. 95% of population nationwide can access to personal telephone services	1. Providing telecommunication system for disabled person up to 100,000 persons and can access to information the same as ordinary people
2. Providing public telephone 1-2 number per village in area without service and commercial potential	2. Promoting and developing useful contents on internet for supporting public service especially contents which is suitable for everyday life of people in each region across the country
3. 80% of population across the country can access high speed internet not less than 2 Mbps	3. Promoting and supporting for capacity building and knowledge enhancing to all people especially children and elderly people as well as low-income, disabled and disadvantaged groups in society not less than 500,000 people
4. Providing center for community internet services, school internet and internet services for community hospitals etc., with speed of internet services not less than 2 Mbps in non-commercial potential areas and non-services area	4. Conducting study and analysis the options to providing emergency telephone numbers as one of the Universal Basic Telecommunications Services and Social Services within year and providing the services within time frame of this plan
5. Providing high speed internet for households in commercial potential area but no service available not less than 50,000 household	5. Supporting the study, research and trial test for conducting the projects related to telecommunications business which are useful for the development of the Universal Basic Telecommunications Services and Social Services
6. Providing the internet service centers with speed of internet services not less than 2 Mbps for social target groups particularly low-income, disabled and disadvantaged groups as well as children and elderly people, not less than 500 centers across the nation	

Source: Bureau of Universal Basic Telecommunication Services and Social Services

According to the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E. 2553 (2010) set the provision to bring the given fund to support research and development of broadcasting and telecommunications services to general public under the Plan for Distribution Universal Basic Telecommunication Services and Social Services (USO) in accordance to the NBTC's Notification on Rules and Procedures for revenue collection to be used to provide universal basic telecommunications services and social services which set the rate of fee collection for distribution universal basic telecommunications services and social services (USO) from all type of the licensee, not more than 3.75 percent of revenue from the Telecommunications services.

In 2012, the NBTC has operated the distribution of universal basic telecommunications services and social services by carrying out the strategic plan to develop a draft of Action Plan for Distribution Universal Basic Telecommunications Services and Social Services (USO) for 2012-2013 period to fund the research and development of broadcasting and telecommunications services for public benefit.

Telecommunication Resource Management

In 2012, the NBTC has developed and revised the plans and procedures for management and regulation on telecommunications resources effectively, transparently, fair for all operators and the utilization of telecommunications numbers which are national communication resources worthwhile as well as maximizing benefit to the people under The NBTC's Notification on Rules for Allocation and management of telecommunications numbers B.E.2551(2008). In 2012, the NBTC assigned the Office of NBTC to allocate telecommunication numbers to the operator as shown in Table 43 and Table 44.

Table 43 Statistics of Telecommunication Numbers Allocations in 2012

	Total of number allocation
Amount of extra numbers allocated in 2012	21
Amount of standard numbers allocated in 2012	
- Fixed line Telephone	144,000
- Mobile Phone	8,090,000
- Technical numbers	307

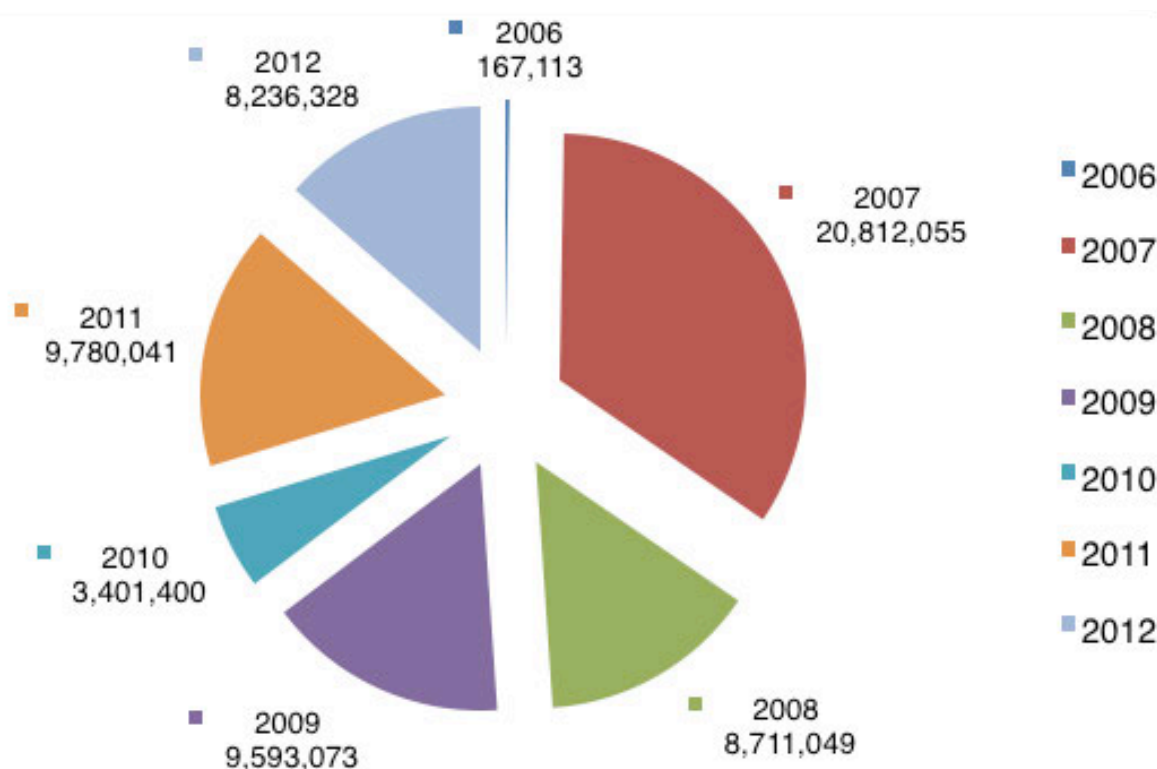
Source: Bureau of Administration and Telecommunication Numbering Allocation Management

Table 44 Statistics of Telecommunication Numbers Allocation, by service categories during 2006-2012

NO.	service category	Total number allocated in year of approval (number)						
		2006	2007	2008	2009	2010	2011	2012
1	Special Telecommunication Number in 3 digits	1	3	1	6	6	-	-
2	Special Telecommunication Number in 4 digits	2	52	32	27	332	41	21
3	Mobile Phone number	61,110	20,710,000	8,650,000	9,580,000	3,300,000	9,720,000	8,090,000
4	Fixed line number	106,000	102,000	25,000	3,000	84,000	58,000	144,000
5	VoIP number	-	-	36,000	10,000	17,000	2,000	2,000
6	Technical number	-	-	16	40	62	-	307
	Total	167,113	20,812,054	8,593,049	9,593,073	3,401,400	9,780,041	8,236,328

Source: Bureau of Administration and Telecommunication Numbering Allocations Management

Chart 29 Statistics of Telecommunication Numbers Allocation during 2006-2012



Source: Bureau of Administration and Telecommunication Numbering Management

The NBTC has taken the important missions in the management of major telecommunications numbers. These include the adjustment guidelines in regulation of use of telecommunications numbers and issuance of NBTC's Notification on management of telecommunications numbers as follows,

1. Drafting the NBTC's Notification on Telecommunications Numbers Plan.
2. Drafting the NBTC's Notification on Rules and Procedures for Approval of Telecommunications Numbers B.E.....
3. Promoting the approval of telecommunications resources utilization to meet the use in telecommunications business in order to keeping the pace with the change of technology and circumstances. (Improving and deloveping the effective services for Mobile Number Portability).
4. Setting up the Bureau of Preparation of the Emergency NBTC's Notification System via short messaging (SMS 191) by working together with the National Police and the mobile operators.
5. Regulation of Mobile Number Portability (MNP) services by developing Mobile Number Portability (MNP) services and drafting Road Map for improvement and development Mobile Number Portability (MNP) services. Currently, the progress in transferring the mobile number not less than 80 percent of total requests to transfer.

Progress on the implementation of Telecommunications Master Plan No.1 B.E.2555 - 2559 (2012-2017)

In 2012, the Telecommunication Commission of NBTC had major performance in accordance with the Policy Statement. Those were the formulation and promulgated the Spectrum Management Master Plan B.E.2555 (2012) as guideline framework for spectrum management and the criteria, and primary condition for licensing and all operations related to spectrum usage earlier than the deadline imposed in the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E. 2553 (2010) as well as the Telecommunication Business Master Plan No. 1 B.E.2555 - 2559 (2012-2017) in order to use as guideline framework to operate in five years period as imposed in the Act.

Both Master Plans are considered as the NBTC's tools and mechanisms to entirely regulate National Telecommunications business in Thailand. After these two master plans were promulgated, the National Telecommunication Commission of the NBTC had managed the important missions in accordance with the strategies under the Telecommunications Business Master Plan which produced the major progress as shown in Table 45.

**Table 45 Summary of Progress on Implementation of the
Telecommunications Business Master Plan No.1**

Strategies	Major Progress
Developing and promoting free and fair competition	The NBTC's Notification on the prescription of prohibited acts which are deemed as foreign dominance B.E. 2555 (2012)
	The NBTC's Notification on the criteria and the accounting procedure of the General Ledger in Telecommunications Business
	The NBTC's Notification on the Maximum Rate of Telecommunications Services for Domestic Mobile Services on Voice B.E.2555 (2012).
	The NBTC's Notification on Termination of the Contemporary Maximum Rate of Telecommunications Services in accordance with the Notification of the NBTC regarding the Maximum Rate of Services Tariffs and Pre-Paid Billing in Telecommunications Business B.E.2549 (2006)
	The NBTC's Notification on the Telecommunications Business Licence Fee
Spectrum licensing and telecommunications business licensing	The NBTC's Notification on Radio Spectrum of International Mobile Telecommunications - IMT) in frequency bands of 1920-1980/2110-2170 MHz and frequency bands of 2010-2025 MHz
	To grant the license of IMT Radio Spectrum in frequency bands of 2.1 GHz and the license of telecommunications business type three to operators who won the auctions as follows: <ol style="list-style-type: none"> 1. Advance Wireless Network Co., Ltd. 2. Real Future Co., Ltd. 3. DTAC Network Co., Ltd.
	The NBTC's Notification on the Criteria and Deadline to Submit the Detail of Licensed Radio Spectrum or the Use of Radio Spectrum for Telecommunications Business

Strategies	Major Progress
Efficient utilization of telecommunications resources	<p>Major adjustment of criteria for regulation on the Telecommunications Numbers Usage and Management as follows:</p> <ol style="list-style-type: none"> 1. Drafting the Notification of NBTC on Telecommunications Numbers Plan. 2. Drafting the Notification of NBTC on the Criteria and Telecommunications Numbers Licensing Procedure B.E. 3. Promoting the telecommunications resources usage granting which are able to meet the utilization in telecommunications business and to keep the pace with the changes in technology and situations. (To adjust and develop the efficiency on mobile number portability services) 4. To appoint the working group for preparation of emergency call via short message services (SMS 191) in collaboration with Royal Thai Police and mobile phone operators. 5. To regulate the mobile number portability (MNP) by developing mobile number portability services for 1 case and preparing the operation plan to improve and develop MNP Roadmap. So far, transferring the mobile phone numbers to other operators have succeeded which accounted for 80% of all MNP application <p>The NBTC's Notification on the use of telecommunications network interconnection charge rate as reference rate</p>
Providing universal basic telecommunications services	<p>The NBTC's Notification on Plan to Provide Universal Basic Telecommunications Services and Social Service B.E 2555-2559 (2012-2017)</p> <p>The NBTC's Notification on Rules, Procedures and Provisions for Providing Universal Basic Telecommunications Services and Social Service</p> <p>The draft of Action Plan to Provide Universal Basic Telecommunications Services and Social Service (USO) for 2012-2017</p>
Protecting consumers in Telecommunications	<p>The NBTC's Order on Dispute Resolution Between Telecommunication Business Licensee and Petitioner</p> <p>The NBTC's Notification on the Maximum Rate of Telecommunications Services for Domestic Mobile Services on Voice B.E. 2555 (2012)</p>
Preparation for joining the ASEAN Economic Community	The Study on the Preparation of Telecommunications industry and the Study on the impact of Thailand Entry into ASEAN Economic Community

Source: Bureau of Academic and Telecommunication Resource Management



Section 5 | Key Performance of the Office of NBTC

The Office of NBTC Background

Regarding Section 56 paragraph one and Section 60 paragraph one of the Act on the Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Service B.E. 2553 (2010), prescribed that there shall be an Office of the National Broadcasting and Telecommunications Commission, called in short “Office of NBTC”, which is a juristic person having a status of Stage agency and shall not be subject to the government agency under the law on public administration, or state enterprise under the law on budgetary procedure or other laws and is under the supervision of a chairperson. The affairs of the Office of the NBTC shall not be subject to the law on labor protection, the law on labor relations, the law on social security and the law on worker’s compensation. The Office of NBTC shall have the Secretary General of the Office of NBTC who shall be responsible for the work performance of the office and directly reported to the Chairperson and shall be the superior of officials and employee of the Office of NBTC.

The Office of NBTC shall have duties and powers under the provision of Section 57, and shall have revenues by the virtue of Section 65 of the Act on the Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Service B.E. 2553. (2010)

Total employee numbers of the Office of NBTC in 2012 are 1,097 employees.

The Core Value of the Office of NBTC in 2012 are as follows:

- N Navigate to International
- B Build Innovation
- T Teamwork and Transparency
- C Consistency to Professional



Operation Management

In 2012, the Office of NBTC had managed its duty in many areas such as human resources management, budgeting, financial, management of asset and other managements of the Office of NBTC as follows:

1. Issuing the notifications and regulations regarding general management, human resource management, budgeting, financial and assets and other operations of the office of the NBTC .

Under Section 27 (19) in conjunction with Section 58 of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Service B.E.2553 (2010) constituted that the NBTC has authority to issue regulations or notification concerning about general management. Budgeting, financial and assets and other operations of the Office of NBTC, shall include the following:

- 1) to divide up the tasks within the Office of the NBTC as well as the scope of those bureaus.
- 2) to formulate the positions, salary and other remuneration of the Permant Secretary, officers and employees of the office of NBTC as well as other remuneration and expenses of the committees and sub-committee according to the Act.
- 3) to manage the selection or evaluation and ability in order to be useful for the recruitment and appointment or promotion and salary increase as well as setting the criteria for the contract renewing and severance payment in the case of missing on the assessment.
- 4) human resource management as well as disciplinary action, appeals and complaints.
- 5) acting and action for management.
- 6) to impose the uniforms and dress of the officers and employees of the Office of NBTC.

2. Restructuring the divisions within the Office of NBTC.

In 2012, the NBTC determined that the restructuring of the divisions within the Office of NBTC was one of its urgent agendas which led to the appointment of sub-committee on restructuring of organization and framework of manpower in the office of NBTC. The chairman of the National Telecommunications Commission is the chairman of the sub-committee and other committees who were the experts in relevant fields had managed the restructuring of NBTC's organization and workforce. The sub-committee completed the restructuring and manpower of the Office of NBTC and submitted to the tenth NBTC's meeting dated on 28 December 2011 The NBTC's meeting result was had agreed in principle the structural framework on divisional realignment within the Office of NBTC. The Office of NBTC had completed the improvement of the organizational structure and manpower in the organization and also issued the NBTC's regulation on Divisional Realignment within the office of NBTC B.E.2555 (2012) which was promulgated in the Royal Gazette, No. 129, Special 25 (d), on January 27, 2012 as well as formulated the NBTC's Regulation on Human Resource Development B.E. 2555 which was promulgated in the Royal Gazette, No. 129, Special 113 (d), on July 17, 2012.

3. The Preparation of Annual Expense Budget

The expense budget of the office of NBTC under Section 27 (20) of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Service B.E.2553 (2010) regarding the Annual Expense Budgeting of the office of NBTC. In 2012, the NBTC approved the Guidelines of Annual Expense Budgeting 2012 and assigned the Office of NBTC prepared the detail of the annual expense budget in 2012 in accordance with the Guidelines of the 2012 Annual Expense Budgeting and the calendar of the expense budget in the fiscal year of 2012 and also acknowledged the 2013 annual revenue estimation and the annual expense budget on operation of NBTC and the Office of NBTC as well as the binding projects across the fiscal year of 2012.

In addition, the NBTC also approved the appointment of the subcommittee on consideration of the budget of the Office of NBTC in order to consider and scrutinize the budget of the Office of NBTC in 2013. The Office of NBTC has prepared the detail of the 2013 annual budget in accordance with the Guidelines of the 2013 Annual Expense Budgeting and the calendar of the expense budget in the fiscal year of 2013. The 2013 NBTC annual budget had been completed on December 26, 2012. The NBTC also formulated the Regulation on the preparation of 2012 budget of the office of NBTC which was promulgated in the Royal Gazette, No. 129, Special 175, on November 21, 2012.

The Expenditure Budget for the Year 2012 and 2013 are shown in Table 46 and 47

Table 46 Expenditure Budget for the Year 2012

Unit: Baht

Item	Budget Allocated	Amount Payment
Expenditure Budget for the Year 2012	3,932,390,000.00	3,482,491,325.20
1. Operating Expenses of the NBTC and the Office of NBTC	2,726,399,800.00	2,423,398,848.14
1.1 Human Resource Expenses	1,023,153,400.00	942,893,251.49
1.2 Organizational Administrative Expenses	1,057,916,587.94	889,721,353.10
1.3 Durable Articles, Land and Construction	392,425,472.06	377,138,680.38
1.4 Other Expenses	252,904,340.00	213,645,563.17
2. Appropriate Burden of Obligations Expenses	970,922,100.00	904,092,477.06
3. Contributions to Broadcasting and Telecommunications Research and Development for Public Interest	75,000,000.00	75,000,000.00
4. Reserved Budget for Contingencies	160,068,500.00	80,000,000.00

Source: Bureau of Strategy and Budgeting

Table 47 Expenditure Budget for the Year 2013

Unit: Baht

Item	Budget Allocated
Expenditure Budget of the Year 2013	3,513,602,000.00
1. Operating Expenses of the NBTC and the Office of NBTC	2,549,165,600.00
1.1 Human Resource Expenses	1,161,180,000.00
1.2 Organizational Administrative Expenses	996,875,700.00
1.3 Durable Articles, Land and Construction	94,033,400.00
1.4 Other Expenses	297,076,500.00
2. Appropriate Burden of Obligations Expenses	864,436,400.00
3. Contributions to Fund	50,000,000.00
3.1 Broadcasting and Telecommunications Research and Development for Public Interest	40,000,000.00
3.2 Technology Development Fund for Education	10,000,000.00
4. Reserved Budget for Contingencies	50,000,000.00

Source: Bureau of Strategy and Budgeting

4. The Appointment of Various Sub-Committees

According to the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Service B.E.2553 (2010), Section 31 requires that the NBTC has to appoint the two sub-commissions which consist of:

- 1) the Sub-Commission Broadcasting Consumer Protection.
- 2) the Sub-commission on Telecommunications Consumer Protection.

In order to protect consumers, not to be exploited by the broadcasting, television and telecommunications business, it requires the NBTC has the duty to investigate the operation of the broadcasting, television and telecommunications business in order not to operate in any way that should exploit from the consumers.

In addition, according to Article 33, of the Act on Organization to Assign Radio Frequency and to regulate the Broadcasting and Telecommunications Service B.E. 2553 (2010), the NBTC has the power to appoint sub-committees, working groups or assigned any officers to act under the Section or as assigned. In 2012, the NBTC agreed on the appointment of the 45 sub-committees in total, which selected from various professionals, senior experts, experts with high experiences in relevant fields and beneficial for the NBTC operation to support NBTC action the urgent mission more efficiently.

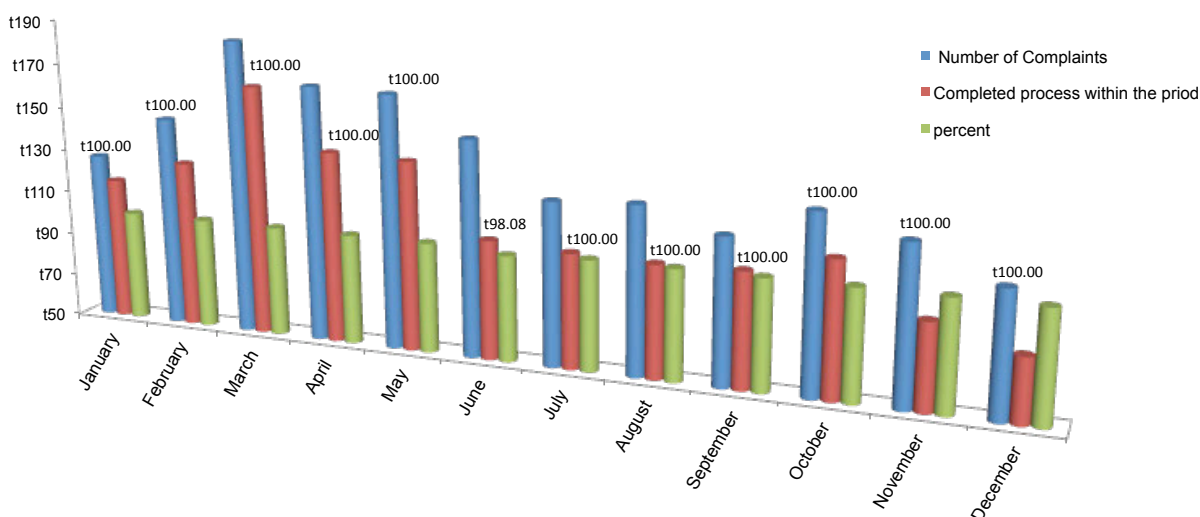
Spectrum Management and Inspection in Radio, Television, Broadcasting and Telecommunications Business Operations

In 2012, the Office of NBTC has monitored spectrum utilization for radio, television, broadcasting and telecommunications business operations to reduce unlicensed radio spectrum usage and to facilitate radio communication to communicate with efficiency. There are about 89 correction cases for spectrum disturbance as follows:

1. Aviation disturbance correction 21 cases
2. Other radio disturbance 68 cases

Statistic on monitoring spectrum utilization for radio, television, broadcasting and telecommunications business operations by the Office of NBTC in 2012 as shown in Chart 30

Chart 30 Statistic on Monitoring Spectrum Utilization for Radio, Television, Broadcasting and Telecommunications Business Operations in 201



Source : Bureau of NBTC Regional and Integration

Efficiency and Effectiveness of Complaints received in 2012

1. Receiving Complaints about Broadcasting Business

Detail of the efficiency and effectiveness of complaints about broadcasting and telecommunications business management data shown in Section Three: Report on major performance of NBCT in 2012 in the part of Strategies on Consumer Protection in Broadcasting Business.

2. Receiving Complaints about Telecommunications Business

In 2012, the NBTC had received the complaints about various services in telecommunications business for 2,261 cases. Among those case, 1237 cases were settled or accounted for 54.70 percent of all complaints received and 1,024 cases were in the process of consideration or accounted for 45.30 percent of all complaints received. Ranks and percentages of services Categorized by type of services were complained as followed.

1. The complaints on mobile phone services were received 1,709 cases or accounted for 75.45 percent of all complaints.

2. The complaints on internet services were received 359 cases or accounted for 15.88 percent of all complaints.

3. The complaints on fixed-line telephones were received 145 cases or accounted for 6.41 percent of all complaints.

4. The complaints on radiocommunications stations were received 43 cases or accounted for 1.90 percent of all complaints.

5. The complaints on others services were received 5 cases or accounted for 0.22 percent of all complaints.

The efficiency and effectiveness of Complaints Management in Telecommunications Business in 2012 is shown in Table 48.

Table 48 Efficiency and Effectiveness of Complaints Management in Telecommunications Business in 2012

Type of Services	No. of Complaints	Percentage	Complaints Status			
			Settled	Percentage	In process	Percentage
Mobile Pone	1,709	75.45	844	49.39	825	50.61
Internet	359	15.88	275	76.60	84	23.40
Fixed-line	145	6.41	102	70.34	43	29.66
RadioCommunications Stations	43	1.90	13	30.23	30	29.77
Others Services (PCT, VoIP, and Net Call)	5	0.22	3	60.00	2	40.00
Total	2,261	99.86	1,237	286.56	984.00	

Source: Bureau of Consumer Protection in Telecommunications Business

1) Mobile Phone Services

In 2012 the NBTC had received 1,709 complaints on mobile phone services or 75.45 percent of all complaints (2,261 cases in total), which the top three issues of services were complaints on the limit of time in Pre-paid, the problem of incorrect/unfair billing and the problem of additional services, respectively. (Table 49)

Table 49 Efficiency of Complaints Management on Mobile Phone Services in 2012

Status of Complaints Management on Mobile Phone Services	No. of Complaints	Percentage (of all complaints received)
Settled	844	47.39
In the process	825	50.61

Source: Bureau of Consumer Protection in Telecommunications Business

Detail of the issues of complaints and the complaints on mobile phone service providers as shown in Table 50 and Table 51, respectively.

Table 50 Number of Complaints Categorized by Mobile Phone Services in 2011

Issues/Complaints	No. of Complaints
Pre-paid	436
Incorrect billing	304
Standard of services	234
Insufficient information	208
Additional services	185
Cancellation of Pre-paid service subscription	75
Mobile Number Portability services	54
Quality of services	54
Cancellation of service subscription	44
Privacy information	18
Unfair billing (not in line with maximum rate)	6
Access to services	5
Other services	87
Total	1,709

Source: Bureau of Consumer Protection in Telecommunications Business

Table 51 Number of Complaints on Mobile Phone Services Providers in 2012

Service Providers	No. of Complaints
Advance Info Service Public Co., Ltd.	477
Total Access Communication Public Co., Ltd.	365
True Move Co., Ltd.	320
True Move H Co., Ltd.	258
Hutchison CAT Wireless Multimedia Co., Ltd.	125
Samart i-Mobile Co., Ltd.	107
CAT Telecom Public Co., Ltd.	35
TOT Public Co., Ltd.	11
Total	1,709

Source: Bureau of Consumer Protection in Telecommunications Business

2) Internet Services

In 2012, the NBTC received the complaints on internet services for 359 cases or accounted for 15.88 of all complaints received (2,261 cases in total) which the top three issues of internet services were complaints on the problem of standard of services, the problem of incorrect billing and the problem of the cancellation of service subscription, respectively.

Efficiency of complaints management on internet services as shown in Table 52 below.

Table 52 Efficiency of complaints management on Internet services in 2012

Status of Complaints Management on Internet Services	No. of Complaints	Percentage (of all complaints received)
Settled	275	76.60
In process	84	23.40

Source: Bureau of Consumer Protection in Telecommunications Business

Detail of the issues of complaints and the complaints on internet service providers as shown in Table 53 and Table 54 respectively.

Table 53 Number of Complaints Categorized by Internet services issues in 2012

Issues of Complaints	No. of Complaints
Cancellation of service subscription	151
Standard of services	63
Quality of service	38
Others	none
Total	359

Source: Bureau of Consumer Protection in Telecommunications Business

Table 54 Number of Complaints on Internet Services Providers in 2012

Internet Services Providers	No. of Complaints
Triple T Internet (Triple T Broadband Public Co.,Ltd.)	111
TOT Public Co.,Ltd.	105
True Internet Gateway Co.,Ltd.	104
True Life Plus Public Co.,Ltd.	13
CAT Telecom Public Co.,Ltd.	6
Advance Info Service Public Co.,Ltd.	18
Real Move Co.,Ltd.	1
True Move Co.,Ltd.	1
Total	359

Source: Bureau of Consumer Protection in Telecommunications Business

3) Fixed-line Telephone Service

In 2012, the NBTC received the complaints regarding the fixed-line telephone services for 145 cases or accounted for 6.41 percent of all complaints received (2,261 cases), which the top three issues of fixed-line telephone services were complaints on the problem of standard of services, the problem of incorrect billing and the problem of the cancellation of service subscription, respectively.

Efficiency of complaints management on fixed-line telephone services as shown in Table 55.

Table 55 Efficiency of complaints management on fixed-line telephone services in 2012

Status of complaints management on fixed-line telephone services	No. of Complaints	Percentage (of all complaints received)
Settled	102	70.34
In process	43	29.66

Source : Bureau of Consumer Protection in Telecommunications Business

Detail of the issues of complaints and the plaints on fixed-line telephone services providers as shown in Table 56 and Table 57, respectively.

Table 56 Number of Complaints categorized by services issues in 2012

Issue of Complaints	No. of Complaints
Standard of services	68
Incorrect billing	49
Cancellation of service subscription	14
Insufficient information	4
Others	None
Total	145

Source: Bureau of Consumer Protection in Telecommunications Business

Table 57 Number of Complaints on Fixed-line telephone services providers in 2012

Services Providers	No. of Complaints
TOT Public Co.,Ltd.	44
True Corporation Public Co., Ltd.	69
TT&T Public Co., Ltd.	20
Asia Wireless Communication Co., Ltd.	8
CAT Telecom Public Co., Ltd.	4
Total	145

Source: Bureau of Consumer Protection in Telecommunications Business

4) Radiocommunications Stations

In 2012, the NBTC received the complaints regarding radiocommunication stations for 43 cases or accounted for 1.90 percent of all complaints received (2,261 cases), which the top issues were the problem of health safety and the problem of insufficient information.

Efficiency of complaints management on radiocommunications stations as shown in Table 58.

Table 58 Efficiency of complaints management on radiocommunications stations in 2012

Status of complaints management on Radiocommunications stations	No. of Complaints	Percentage (of all complaints received)
Settled	13	30.23
In process	30	29.77

Source: Bureau of Consumer Protection in Telecommunications Business

Detail of the issues of complaints and the plaints on radiocommunication station services providers as shown in Table 59 and Table 60, respectively.

Table 59 Numbers of Complaints Categorized by Radiocommunications Station Issues in 2012

Issues of Complaints	No. of Complaints
Standard of health security	42
Insufficient information	1
Total	43

Source: Bureau of Consumer Protection in Telecommunications Business

Table 60 Numbers of Complaints on Service Providers in 2012

Services Providers	No. of Complaints
Advance Info Service Public Co.,Ltd.	14
True Move Co., Ltd.	10
TOT Public Co., Ltd.	8
Total Access Communication Public Co., Ltd.	7
CAT telecom Public Co., Ltd.	4
Total	43

Source: Bureau of Consumer Protection in Telecommunications Business

5) Others

In addition to various services complaints which the NBTC received and resolved as mentioned above, in some cases there were other complaints which the NBTC had also received and managed in the process of considerations such as PCT services, Taxi service centers, VoIP services and Net Call services for 5 cases or accounted for 0.22 percent of all complaints received (2,261 cases). Three settled cases that accounted for 60 percent and two cases in the process of consideration that accounted for 40 percent.

Detail of the issues of complaints and the complaints on services providers as shown in Table 61 and Table 62, respectively.

Table 61 Numbers of Complaints Categorized by the issues in 2012

Issues of Complaints	No. of Complaints
International Pre-Paid	1
Debt collection services	1
Standard of services	3
Total	5

Source: Bureau of Consumer Protection in Telecommunications Business

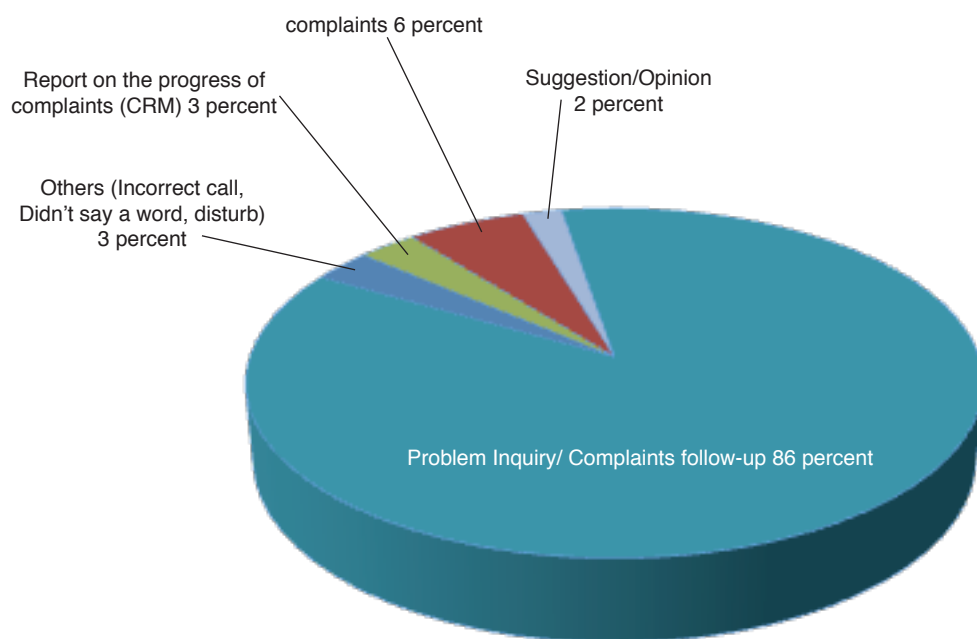
Table 62 Numbers of Complaints on service providers in 2012

Service Providers	No. of Complaints
CAT Telecom Public Co., Ltd.	2
Total Access Communications Public Co., Ltd.	1
Asia Wireless Communication Co., Ltd.	2
Total	5

Source: Bureau of Consumer Protection in Telecommunications Business

In 2012, the NBTC also received other complaints regarding the Office of NBTC's operation via the NBTC's Call Center (Number 1200) as summarized detail shown in Chart 31 below.

Chart 31 Number of Complaints on operation received by NBTC's Call Center (1200)



Source : NBTC's Call Center 1200



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