Future of the Thai Communications in the Age of Convergence*

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I would like to graciously express my deep appreciation to CMAI Association of India, ITU and CTO for giving me opportunity to participate in this forum and to share with you some experience on the Thai communications market liberalization which is a crucial reform in Thailand as it was the first step for Thailand to shape up the market structure from state concession to licensing regime. It is such a pleasure that those goals and tasks accomplished by the NBTC are internationally recognized as evidenced by the positive result of the ITU evaluation study on 3G auction and by being the recipient of the award on "Excellence in Convergence Standards for Telecom Radio & Broadcasting" for such achievement. To provide further understanding on the communications market reform in Thailand, this report will elaborate the content of Thailand's liberalization context especially telecommunications market.

Background at a glance

In 2011, the National Broadcasting and Telecommunications Commission (NBTC) was established according to the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services 2010 to handle regulatory matters on broadcast and telecoms sectors. The Act, consistent with the 2007 Constitution of Thailand, brings about significant change in telecoms and broadcasting market in Thailand as the laws require "liberalization" in telecoms and broadcasting markets. The concept of spectrum is national and scarce resource and efficient use will optimize and generate benefit to Thai people. The spectrum must be allocated by

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means of market based approach spectrum auction under the authority empowered to the NBTC.

The NBTC is an independent convergent regulator comprising eleven commissioners with various expertise who went through competitively selective process and were officially appointed by the King of Thailand, The convergent regulator 'NBTC' is divided into two boards of committee; telecoms and broadcasting committees, for the reason that they can specifically perform their roles and duties which fit mostly for each field of expertise. However, the joint authority and responsibility still remain in term of 1.) spectrum management which must be consistent with the radio frequency plan and 2) adopting policies and regulations to promote free and fair competition and with due regard to public interest. There are three main regulations which set the regulatory framework for the NBTC, the NBTC Act 2010, the Telecoms Business Act 2001 and the Broadcasting Business Act 2008, including over 170 notifications dealing with specific matters relating to telecommunications regulations.

I. Current status on telecommunications issues

1. Before the Establishment of the NBTC

Before the enactment of the NBTC Act 2010, the use of radio frequency had been granted under administrative approach (concession contract), which discretionary power plays an important role. Such concept can impair the development of the market in some countries. In Thailand, dominance position causing by the incumbents is resulted from lack of efficient competition. The lack of efficient competition deters the real development in the industry and consequently affects consumers as end users in term of limitation of consumer's choice. Under the new regime, radio frequency used for telecoms and broadcasting business will be allocated under market-based approach, i.e., auction for 2100 MHz band. Pursuant to the liberalization concept, all sectors (incumbents, existing sectors, new entrants) will be treated equally under the similar regulation without any special privilege.

There was an attempt by the National Telecommunication Commission or "NTC" (the predecessor of NBTC) to conduct the auction in September 2010. In compliance with the Act on Organization 2000, the NTC issued the 2nd Telecommunications Master Plan (2006-2010) (B.E. 2549-2553) and announced the IMT 2000 Auction promulgation in the Royal Gazette in order to conduct the 2.1 GHz spectrum (3G auction) auction. However, the Communication Authority of Thailand *(CAT)* filed a lawsuit on the major ground of unconstitutionality of the auction. The

Central Administrative Court affirmed by the Supreme Administrative Court issued a provisional interim injunction suspending the NTC from issuing the 3G licenses by auction.

2. After establishment of the NBTC

2.1 Regulatory tasks of the NBTC: spectrum auction and market liberalization

Liberalization is a major shift from long term monopoly by state concession to licensing regime under NBTC regulation. The Act requires the NBTC to allocate spectrum resource by means of auction. In October 2012, for the first time in the Thai history, licenses for spectrum in the 2.1 GHz band were auctioned by the NBTC. The NBTC carried out spectrum auction with knowledge, prudence and due process including setting up the subcommittee gathering expertise to conduct the study on regulatory and technical details.

The NBTC designed the auction of 2x45 MHz spectrum to license 9 spectrum blocks with minimum amount of 5 MHz with aim to promote competition because this flexible packaging could attract new entrants with lower demand and limited budget to enter into the market. The spectrum cap set at 15 MHz with aim to prevent excessive holding or spectrum hoarding. The NBTC set reserve price at 4,500 Million Baht/ 5 MHz lot which is 70% of the market value as calculated by Chulalongkorn University. Finally, the total revenue gaining from the auction is 41.63 billion (1.36 billion USD) and also long-term benefits which generate to economic and society as a whole resulting from development of telecoms and other relevant sectors.

2.2 Regulatory obstacles and problems: “Before” and “after” the auction

The NBTC went through obstacles and regulatory tension separated into two periods; both “before” and “after” the spectrum auction. Firstly, “before” auction, the NBTC had to file petition to the Central Administrative Court to revoke the provisional interim injunction on previous spectrum auction plan prepared by the NTC in 2010. Furthermore, the NBTC took concrete actions to ensure competition by revising and issuing new regulations in order to facilitate the implementation of 3G spectrum allocation. Besides, the NBTC had to tackle attempts by NGOs and related groups to suspend or revoke the auction process. Secondly, “after” the auction stage, there were legal challenges and storm of criticism against the NBTC. The senators, the members of representatives, and the National Anti-Corruption Commission investigated and asked the NBTC to explain and clarify more about the auction process. Such criticisms led to

the petition filed to the Ombudsman to suspend the licenses and to revoke the regulation, accusing that the auction lacked free and fair competition. Later, the Ombudsman decided to bring an action against the NBTC at the Central Administrative Court. However, after hearing all relevant evidence, the Central Administrative Court dismissed the lawsuit. The Court reasoned that the Ombudsman had no authority to challenge the NBTC because the NBTC is not state officials but instead, it is an independent organization which has responsibility and authority with discretionary power empowered by the Act.

2.3 Regulator's solution: Pre-auction period

In order to accomplish the task of 3G auction process in Thailand successfully, the NBTC had to carefully analyze problems resulting the failure of NTC to conduct the 3G auction in 2010. The study indicated that clearer criteria and more flexible regulations needed to be revised and implemented on the principle of free and fair competition. Thus, the revision of criteria and regulations regarding the 3G auction was pursued as follows:

(1) Removal of the former N-1 condition

The NBTC removed the N-1 condition required by the NTC's 3G auction rule. The N-1 condition means the number of license equal to the number of bidders minus one. The former objective set by the NTC is to encourage competition. After debating on both pros and cons of the N-1 condition, the Spectrum Auction Subcommittee set up by the NBTC decided to abolish this condition. The reasons not to apply the N-1 condition are as follows:

- Risk on leftover licenses - N-1 condition may function well and fit for a situation with the great number of bidders. But according to the telecoms market in Thailand, if the number of bidders is not enough to create sufficiently competitive environment in bidding, this will result in the risk on leftover licenses which are not sold out. It is the loss of economic value of the 2.1 GHz spectrum as it may not be the most valuable spectrum in the future especially when there will be other expiring spectrum licenses which will be also auctioned for the next round such as 1800 MHz band.

- Risk on nominated bidders - For a situation of several bidders in the spectrum auction, there could also be probability that some among the whole bidders are nominated with no intention for real bidding. To avoid manipulation of the auction

through nominated bidders, the N-1 condition were removed.

(2) Spectrum packaging – new block size (flexible packaging)

The current model of spectrum packaging set by the NBTC is flexible packaging. The availability of 45 MHz was divided into 5 MHz (totally 9 lots of 2 x 5 MHz). The Study of the Subcommittee indicated that the fixed packaging (3 lots of 15 x 3 MHz) of the previous packaging design in 2010 auction has a negative impact because new entrants with lower demand cannot enter the market. The design of 5-5-5 MHz has incentive as it could attract new entrants with lower demand and limited budget to enter into the market which is consistent with aim to promote new entrants in telecoms market.

(3) Collusion prevention

After conducting study and according to the international best practices, anti-collusion rule was taken into consideration as collusion easily occurs in accordance with the nature of the bid or auction. The collusion prevention measure was highlighted and adopted for the first time by the NBTC with an objective to deter collusive behavior and manipulation of the spectrum auction among all bidders. The anti-collusion measures applied were legal and social measures. The new anti-collusion rules are covered wide range of prohibited behaviors categorized in the 3G spectrum promulgation. Moreover, in supplementing the legal measure, the NBTC initiated social measure by means of the declaration of the code of conduct of the bidders. Although such declaration imposes no legal pressure, it was expected to draw social action and triggered the sense of social responsibility.

(4) Spectrum cap at 15 MHz

The spectrum cap was set at 15 MHz with aim to prevent the excessive financial power of the bidder, lessen potential of strong market concentration as well as spectrum hoarding.

(5) Reserve price

The NBTC set reserve price at 4,500 Million Baht/ 5 MHz/lot to encourage smaller operators or new entrant. The amount of the reserve price was conducted under the study by the Faculty of Economics, Chulalongkorn University. The NBTC followed international best practices which suggested that regulators should not just aim at maximizing state revenue gaining from auction. Excessive license fee is not objective of telecoms regulation and may later result in adverse effects. Instead, regulators should encourage competition “as a whole”

(6) Revision of Foreign Dominance Notification

The NBTC put best effort to balance benefit among 3 groups; Thai investors, foreign investors and Thai consumers. As a result, the NBTC removed the problematic elements and adopted clearer criteria by revising the Foreign Dominance Notification earlier introduced by the NTC. The new Notification is based on the principle of transparency and legal certainty in order to facilitate and not to burden the implementation of spectrum auction process. By this means, every operators are treated under the same rule which is "fair" competition. Moreover, the Notification works as the preventive measure to promote good corporate governance and self-help licensees to act consistently with the Foreign Business Act.

2.4 Regulator's solution: post-auction period

To ensure that the auction conducted by the NBTC is legitimate, efficient and consistent with international best practices, The NBTC seeked international assistance by working with ITU as a partner to conduct the study on the 3G auction evaluation. After the study in depth, the ITU confirmed that Thailand 3G auction process was consistent with international standards and achieved fair competition.

(1) Outcome assessment confirmed by the ITU

In order to overcome legal challenge and public criticism about the auction result, the NBTC have sought appropriate measure and conduct with best effort and prudence including clarification to the public in order to remove legal hurdles and public misunderstanding caused by misleading information. The result of ITU's study confirms legitimate auction process as follows:

1. Spectrum licenses were efficiently and fairly assigned;

2. Licenses incorporate important measures to improve competition including infrastructure sharing and better access spectrum for MVNO;

3. Benefit to consumers is ensured by price reduction of 15% in comparison to 2G services;

4. Principles, objectives, design and outcome of the auction are consistent with international best practice.

Apart from ITU's assessment, there is also a confirmation by a specialized agency. The NBTC's auction process was conducted by a well known consulting company for spectrum auction, i.e, the PowerAuctions LLC. It confirmed publicly that the auction concluded successfully and consistently with international best practices.

The reserve price resulted in an efficient allocation. The auction rules achieved a more efficient outcome than many other spectrum auctions internationally.

(2) Strengthening stakeholder consultation process

Under the NBTC Act 2010, the NBTC is required to hold public hearings when revising or issuing new regulation. The ITU study points out that one of the crucial reasons leading the Thai public to have negative attitude on the 3G auction process was lack of understanding of the spectrum auction. ITU recommends that, apart from legal requirement, the NBTC should carry out consultation with stakeholders and invite feedbacks throughout the whole process from the beginning of preparation until the end as it develops a plan. By this means, the relevant various issues from affected parties will be considered and it can optimize the result for policy making.

Referring to experience from 3G auction in 2012, for the next auctions – the upcoming expiration of 1800 MHz in 2012 and 900 MHz in 2013 - the NBTC should consult the public, interested individuals, organization and affected parties particularly consumer groups on policy making to realize the greatest public benefit. This would strengthen the NBTC's ability to assess accurately the concerns of stakeholders.

(3) Implementing the auction result to ensure fair competition and protect consumers' interests

In implementing the auction result, the NBTC has recently issued three regulations to be effective, namely, infrastructure sharing, mobile network roaming, and MVNO services. These regulations will draw better competition, speed up the 3G service launch and assist the licensees to fulfill their roll out network obligation.

Moreover, in order to better protect consumers' interests, the NBTC initiates the license conditions imposed to the licensees to require them to submit the Corporate Social Responsibility (CSR) Plan and the Consumer Protection Plan to the NBTC before launching the services. The CSR Plan must cover electronic waste management, concerns of users' health and risk management plan for rapidly changing technology. The Consumer Protection Plan must include measures to handle improper services, mechanisms without charge in receiving complaints from customers etc. Although there two conditions seem to impose obligations to the operators beyond regular rules under the core legislation, all operators are willing to comply since they want to have good image for the public.

II. Current Status on Broadcasting

The broadcasting sector is also in the liberalization stage of migrating concession regime into licensing regime on market-based approach. Unlike the telecommunication sector that has the NTC as the predecessor of the NBTC, the broadcasting sector had no independent regulator setting clear regulations before the NBTC establishment. Thus, the NBTC by the Broadcasting Committee has to draft new rules and regulations to regulate and facilitate the Thai broadcasting industry. There are three types of broadcasting licenses, i.e., public service, community service and commercial service. In addition, the NBTC Act 2010 requires the shift from analogue to digital television system in accordance with the Radio Frequency Master Plan.

In order to implement digital switchover task, the NBC adopted 5 regulations as follows:

1. Notification on radio transmission digital terrestrial television;
2. Notification on technical standard for providing terrestrial services;
3. Notification on set top box technical standard;
4. Frequency plan for digital switchover;
5. Digital roadmap 2012 – 2016

Total 36 digital channels are set for digital TV auction. The NBTC requires that 12 channels will go for public service. The other 24 channels will go for commercial services (with 4 high-definition channels and 20 standard channels). Regarding the preparation of the Digital-TV auction, the NBTC set up the subcommittee comprised of specialists from different concerning areas to conclude key issues for the auction. The NBTC had also work closely with the ITU in preparing digital TV auction for the first time in the Thai history. It is expected that the auction will be conducted before the end of this year.

III. Current Status on convergence issue

Regulatory challenge in convergence issue: Harmonization of the digital dividend spectrum

As convergent technology leads to new market structure, from a regulator's point of view, regulation dealing with technological change and telecoms market dynamism should be imposed only where necessary and must not block market development. Recently, the current convergence issue in Thailand deals with harmonization of the digital dividend spectrum. Early harmonization of the digital

dividend spectrum creates benefits such as impact on GDP growth, productivity, infrastructure investment. The 700 MHz band will directly impact infrastructure roll-out costs in rural areas as it has much greater range and diffuse further so it requires fewer towers to serve a particular area. In contrast, delay in implementation will potentially lead to cross-border interference, loss of economy of scale and reduce social development and economic growth. However, according to the Broadcasting Master Plan, the 510-790 MHz band is planned to allocate for broadcasting. If the NBTC needs to allocate the 700 MHz band for the telecommunication service, it has to amend the Broadcasting Master Plan. Fortunately, the NBTC is a converged regulatory body consisting of the Broadcasting Committee and the Telecommunication Committee. We will study and discuss this matter carefully within the NBTC body to allocate such spectrum for the best interest of the Thai people.

IV. Conclusion

In sum, liberalization in telecoms and broadcasting market is major change and plays a crucial role for the growth of the information society in Thailand. Market liberalization by means of auction shifts concession regime and other non-regulated areas to licensing regime under the NBTC regulations. Its significance is regarded to be the crucial step towards further path to 4G, 5G and others in the future. In order to implement 3G auction, the NBTC has been working hard to overcome both legal and social hurdles arising before and after auction process The result of the auction process conducted by the NBTC is now clear and evident by international recognition that it is legitimate, aimed to promote competition as a whole, generate benefit to consumers and increase equality and accessibility due to national-coverage infrastructure investment. In order to better supervise and regulate its tasks, the NBTC seeks appropriate balance of its role as regulator as well as facilitator. The NBTC also has to understand the nature of the Thai and neighboring markets by conducting public consultation with all stakeholders. Regarding consumer protection, the NBTC has been attempting to increase consumer welfare in term of reasonable price and higher quality of services as well as consumer empowerment. Out-of-dated or some burdensome regulations, which no more fit the current dynamic environment, were revised and enacted to facilitate the telecoms and broadcasting sectors and to provide better protection of consumers. Besides, the NBTC needs to catch up with global communication technology trend and advancement by increasing cooperation at both regional and international levels to exchange information and experience. With all

these regulatory tasks accomplished recently by the NBTC as well as strategic plans towards the future, it is expected that the Thai communications will be progressive and strengthened towards right direction.
