Thailand and Its Shortcut towards General Competition in Telecommunications Industry

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Abstract

It is commonly known that telecommunications industry requires a specific set of regulations in dealing with its own critical issues, particularly of asymmetric regulation in its context of natural monopoly. Today in the digital age, telecommunications industry is transitioning towards general competition meaning that the specific conditions are fading out; specific rules are becoming unnecessary. The United States and the European Union have provided the most advanced examples in this area which have being developed for more than a century. Nonetheless, each country has its own conditions and specific requirements. For examples, the United States possesses very strong systems interplaying between antitrust and telecommunication laws. The European Union has developed its framework in dealing with integration of its internal market. However, both were dealing with the similar issue of natural monopoly by asymmetric regulations and then have been deregulating toward general competition in the level playing field. In case of Thailand, there has been a market reform of the industry. Although Thailand has less experience in competitive market, its situation is well-positioned for general competition because asymmetric regulations are not necessary for the today industry. Operators need not to have specific condition to deal with the powerful incumbent as in the US and the EU. Actually, they all have virtually competed and experienced in the level playing field for quite a while.

Keywords: Telecommunications, Regulation, Interconnection, Competition, Thailand
1. Introduction

It is a general understanding that a specific industry may require a specific set of regulations to deal with its own critical issues. This aspect has generally been accepted and applied especially in the industry with natural monopoly. The telecommunication industry has been regarded as an industry of natural monopoly, which requires sector-specific rules to regulate its particular market, especially for its major issues such as interconnection, allocation of scarce resources, licensing, and universal services.

Basically, sector-specific regulations are aimed to provide market conditions, among other things, in favor of small players in order to allow them building up competitiveness. It is grounded on an assumption that the dominant player is too gigantic for any new entrant to deal with its natural monopoly; it would be justified in a specific condition, for example, that the dominant player provides accesses and treatments to any other players on the basis of transparency and non-discrimination. This will follow by many considerations on the contrary, for examples: whether are asymmetric regulations rather promotions for free-riders than justified conditions for start-ups? If asymmetric regulations are needed; how intensive of regulations should be for the proper promotions? No bright line could be drawn. However, if a line is needed to be provided, it would be necessary to be redefined regularly.

Today many conditions underlying asymmetric regulations are being revisited. Natural monopoly would cease to exist as reflected particularly from the waves of merger and acquisition in business world. Small players are not able to stand alone among the business tidal waves; they substantially depressed productivity growth in the sector. As we have already seen, they have sought their consolidation and synergy strategies. Market and business environments have now changed; asymmetric regulations are unnecessary. The view of transitioning proposition from asymmetric regulation to symmetric regulation implies that sector-specific regulation is not necessary; general competition regime would be sufficient and effective for the situation to handle the industry, just like other markets. The US and EU have adopted this aspect of sector-specific regulation thus far. Thailand as a model-follower is dealing with its own situation and finds its way to transition towards general competition with none or less necessity of asymmetric regulations.

This study is aimed at characterizing the telecommunication industries and regulations in three different approaches: the US, the EU, and Thailand, in order to illustrate the regulatory evolvements based on their own environments. Moreover, this study will discuss on interconnection regulations as a transitioning approaches towards general competition of each regulatory system, which is the main driving factor for many countries who expect to gain more economic advantage from exploiting the same regulatory models as the leaders. Thailand will be a study case of a model-follower in telecommunication regulation which strives to develop and open its industry for competition.
2. The Rise and Fall of Asymmetric Regulations in Leading Industries

In order to understand the rise of asymmetric regulations in telecommunications industry, the history of U.S. telecommunication could be a comprehensive guide of regulatory development. It began with none of specific regulation in the level playing fields and then evolved into special treatment for the incumbents. The history will lead to its asymmetric regulatory model which is the most advanced model evolving from its most advanced industry. The uniqueness of its industrial characteristics is an important ground for the evolvement of U.S. telecommunication regulations; however, the appreciation of natural monopoly and necessity of asymmetric regulation had been brought to general recognition. For a purpose of comparative study, the rise of asymmetric regulations in the EU will be introduced in order to demonstrate different characters of each industry. Whereas the U.S. telecommunications introduced its specific regulations on the assumption of powerful incumbents and leave general competition matters in its antitrust laws, the EU introduced its specific regulations on the assumption of how can community integrate with smooth evolution of technology. This is an ultimate purpose to differentiate their regulatory evolvements.

2.1 The Phasing-in

The U.S. telecommunications

The embracement of asymmetric regulations has evolved along its history which now divided into 5 major phases. Since the expiration of Bell patents in 1894, then numerous telephones companies entered into the market; the competition was then intense. The first phase was come when the government sought to intervene by the only reason of antitrust, especially focused on AT&T’s business practices. With the AT&T’s exclusive long distance services, competitors either merged into the Bell system or went out of business. Mann-Elkins Act of 1910\(^1\) was the first major attempt to deal with interstate telecommunications, and empower the Interstate Commerce Commission (ICC) as the telecommunications regulator. In 1912, AT&T’s competitors protested to the Department of Justice (DOJ) that AT&T was violating antitrust laws. To avoid an antitrust suit, AT&T committed to DOJ in the “Kingsbury Commitment”\(^2\) to stop acquiring other phone companies and to connect the remaining independents to Bell’s long distance network. This could be considered as the beginning of sector-specific regulation, particularly for a regulation on “interconnection”.\(^3\) Since the theory of natural monopoly was ubiquitously accepted, then regulations were subsequently developed in favor of natural monopoly through

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\(^1\) The Act was aimed to give the Interstate Commerce Commission (ICC) jurisdiction over interstate telegraphy and telephony and made telephone companies common carriers, thus requiring them to provide service at just and reasonable rates on nondiscriminatory terms.

\(^2\) The commitment are (1) disposing of its stock in Western Union, (2) acquiring no more competing telcos without ICC approval, (3) interconnecting its long distance facilities with independents.

Willis-Graham Act of 1921. The transition from antitrust to sector-specific regulation of U.S. telecommunications became complete.

The second phase was the major development of U.S. telecommunications by “The Communications Act of 1934” which became the framework of telecommunications regulation today. The Federal Communication Commission (FCC) was established to govern the communications industry by wire and radio, especially to nullify the ICC’s authority over intrastate telecommunications. At mid-20th century, AT&T was found that they exercised to eliminate their competitors from the market of consumer premises equipment (CPE). They prohibited subscribers from attaching any non-Bell equipments to the AT&T’s network, which was rejected later by the court. Then AT&T enjoyed in markets of attaching equipments for a while. Moreover, AT&T was filed by DOJ that they attempted to monopolize nearby industries; AT&T limits its businesses to special projects for the federal government and to operating the national telephone system. The case was settled by “AT&T consent decree” in 1956, which limited AT&T’s business to the provision of “common carrier” communication services.

The third phase was the stage that industry was developed to microwave communications and computer-related businesses. The FCC issued the “First Computer Inquiry” in 1966, separating data processing (computer-related) services from communications services, which were regulated to avoid the possibility of cross-subsidization between businesses. This barred AT&T from computer-related business according to the AT&T consent decree, and brought the industry into a new scheme of regulated competition. FCC then allows unlimited resale and shared use of private line services and facilities in its “Resale and Shared Use decision” of 1976. The U.S. Court of Appeals also issued its “Execunet decision” in 1977, which opened the long distance market to full competition by reversing FCC decisions limiting MCI and other specialized carriers to private line services. However, in 1980, the FCC concluded the “Second Computer Inquiry” to completely deregulate all data processing services and consumer premise equipments. The commission introduced the categories of “basic” and “enhanced” services to require common carriers offering enhanced services through a separate affiliate, based on the same principle of cross-subsidization.

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4 The Act declared telephone service to be an industry of natural monopoly. Then telecom competition is not in the public interest, and exempted telephone companies from antitrust laws when acquiring a competing (local) company.

5 Shelanski, supra note 3 p.22.

6 47 U.S.C. § 152

7 47 U.S.C. § 152(b)

8 Hush-A-Phone Corp. v. US., 238 F.2d 266, 268 (D.C. Cir. 1956)

9 United States v. Western Elec. Co., Civil Action No. 17-49 (D.N.J.)


12 MCI Telecommunications Corp. v. FCC, 561 F.2d 365 (D.C. Cir. 1977) (Execunet I)

13 In the Matter of Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), 77 FCC 2d 384, 419 (1980) (Computer II Final Decision).
The fourth phase began with the “AT&T divestiture” in 1984, which was the most impact to U.S. telecommunications due to the end of AT&T in dominating local telephony. The DOJ filed an antitrust lawsuit in 1974 that AT&T used its control over its local monopoly to preclude competition in the intercity telecommunications market and the telecommunications product market in a variety of ways in violation of the Sherman Act.\textsuperscript{14} The lawsuit had been settled by the “Modification of Final Judgment” (MFJ)\textsuperscript{15} to divest AT&T and to replace the previous consent decree of 1956, in return for AT&T to get into the computer-related industry. The divestiture was virtually the new beginning of competition of both local telephone service and long distance telephone service.

The fifth phase was the major amendment to the Communications Act of 1934 by the Telecommunications Act of 1996. The act was considered as the regulatory reform for the industry by imposing new competitive environment. This could be considered as a swing-back of policy towards the deregulation. Three main concepts are:

1. **Incumbent and New Entrants**: The Telecommunication Act of 1996 has provided preemption over state and local laws on barrier of entry and interconnection. It is designed to facilitate and increase local telephone competition by forcing existing Local Exchange Carriers (LECs) to cooperate with potential competitive entrants.\textsuperscript{16}

2. **Interconnection and Unbundling**: As interconnection becomes an economic necessity\textsuperscript{17}, The Telecommunication Act of 1996 requires incumbent LECs to provide interconnection to any requesting telecommunications carrier at any technically feasible point. The interconnection must be at least equal in quality to that provided by the incumbent LECs to itself or its affiliates, and must be provided on rates, terms, and conditions that are just, reasonable, and nondiscriminatory.\textsuperscript{18} The 1996 Act also requires incumbent LECs to provide requesting telecommunications carriers nondiscriminatory access to network elements on an unbundled basis at any technically feasible point. Unbundling provisions thus move the market towards conditions under which regulation becomes necessary.\textsuperscript{19}

3. **Universal Service**: The Telecommunications Act of 1996 has reformed the funding and definition of universal service by defining that Universal service is an evolving level of telecommunications services that the Commission shall establish periodically under this section, taking into account advances in telecommunications and information technologies and services.\textsuperscript{20} Moreover, the Act also established the Federal-State Joint Board to be in charge with the task of recommending to the FCC what should be included within the federal universal service standard.\textsuperscript{21}

\textsuperscript{16} 47 U.S.C. § 253
\textsuperscript{17} Shelanski, supra note 3, p.27.
\textsuperscript{18} 47 U.S.C. § 251
\textsuperscript{19} Shelanski, supra note 3, p.28.
\textsuperscript{20} 47 U.S.C. § 254(c)(1)
\textsuperscript{21} 47 U.S.C. § 254(a)(1)
In 1998, the Commission modified certain of the requirements placed on Bell Operating Companies pursuant to “Computer III” in order to permit common carriers to offer enhanced services. Since then, the 1996 Telecommunications Act has been regarded as the asymmetric regulatory model in promoting competition especially by liberalized interconnection policy; however, asymmetric regulations have served not much in today market on which we will subsequently discuss.

The EU Telecommunications
Originally, the telecommunications sector in each member state can be characterized by a strong public service monopoly, usually run together with postal services. Prior to that there are long histories of how had their state-owned operators evolved: some of telegraph and telephone companies had been nationalized and none of operator was privately operated for such a long period like AT&T. Since nationalization, regulations were top-down in favor of national enterprises. The brief history of competition here will begin with the market reform towards deregulation and privatization of those state-owned operators. However, we will focus on the necessity of asymmetric regulations on the level of the EU in order to see situations and conditions underlying the ultimate goal of community integration.

1980’s could be the first phase of market reform; the industry began to change with the regulatory reform and privatization in order to introduce market competition in some Member States. The EU telecommunications regulations have been seen as parts of the economic integration initiated by the Treaty of Rome and Treaty of Maastricht. It then has been developed through the program of “internal market” which is a basis of the EU common regulatory framework for the telecommunications sector.

In order to open up the market, the EU telecommunications saw major considerations of incumbent monopolists and various sector-specific rules. Since the publication of the Telecommunications Green Paper in 1987, the European Commission then introduced two main mechanisms: liberalization and harmonization, in finding for a competitive market. Then “Liberalization Directives” and “Harmonizing Directives” were adopted to resolve the problems. A series of liberalization was imposed including Terminal equipments (1988), Value added services (1990), Switched data services (1993), Satellite communications (1994), Cable television networks (1995), Mobile communications (1996), and Voice and infrastructure (1998), with deferments, however, for certain lesser-developed Member States.

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23 This is Title XV on “Trans-European networks” of the Treaty establishing the European Community: the important legal basis to European integration in the area of telecommunications.
24 Treaty establishing the European Community, Article 3(1)(c)
26 Directive 90/387/EC, as amended by directive 97/51/EC
27 On 1 January 1998 the market was considered as fully liberalized: competition in public voice telephone services became mandatory across the EU.
A series of Harmonizing Directives complemented the liberalization mechanism. The 1990 Framework Directive\(^29\) (so called “ONP Directive”) established the principle of “Open Network Provision”\(^30\), which identifies the need for a series of Harmonization Directives and Recommendations. Alongside this detailed sector-specific legislation, general European competition law also applies to the telecommunications industry. A concept of Open Network Provision established the need of access to public networks and services according to defined principles of “objectivity”, “transparency” and “non-discrimination”.

In 1995, the Commission’s Green Paper on liberalization of infrastructure part II, pointed out the need to adapt the existing ONP Directives to a competitive environment and to develop a further specific Directive on Interconnection. Together with the Licensing Directive\(^31\) and Data Protection in the Telecommunications Sector Directive,\(^32\) these measures make up the so-called “1998 package” of legislation which was established in time for the opening of the EU telecommunications market on January 1, 1998. The Commission had also published Guidelines within the “1998 package” on the application of EC competition law in the telecommunications sector. These guidelines seek to clarify what behavior is likely to be an anticompetitive practice according to the competition rules.\(^33\) This was a primary design for the EU telecommunications transitioning from monopoly to competition.

Due to rapidly developing technologies and convergence, a single, coherent new framework that covers the wider range of “electronic communications”, including broadcasting, has been agreed and applied in 2003. In other words, content services remain outside the scope of the new framework. The new regulatory framework is made up of six specific directives and one decision. With the date of application, the old framework has been repealed with the exception of certain transitional measures, which remain in force until the new institutions, and procedures of the new framework will be ready to replace them. Despite a number of programs in supporting the open competition, there are still a number of provisions addressing the kinds of access and interconnection duties on the powerful operators on which we will subsequently turn to discuss.

The transitioning from sector-specific regulation to general competition has been the dominant policy model of every market including the European Union.\(^34\) Although the EU aimed eventually at open its market for full competition, it has adopted a new sector-specific framework to redefine the market definition with a new term of

\(^29\) Directive 90/387/EC, as amended by directive 97/51/EC
\(^30\) Directive 90/387/EC, Article 1(3) provided that “Open network provision conditions shall aim at:
- ensuring the availability of a minimum set of services,
- securing access and interconnection to public telecommunications networks and publicly available telecommunications services,
- encouraging the provision of harmonized telecommunications services to the benefit of users, in particular by identifying and promoting by voluntary means harmonized technical interfaces for open and efficient access and interconnection, and associated standards and/or specifications and
- guaranteeing the provision of universal service in telecommunications, taking account of any future evolution,
throughout the Community.”
\(^31\) Directive 97/13/EC
\(^32\) Directive 97/66/EC
\(^33\) Treaty establishing European Community, Article 81-82
\(^34\) Directive 2002/21/EC, Recital (1)
“electronic communications”\textsuperscript{35} in March 2002, which came into force in July 2003. It should be noted that this is a compromising position during the transitional period. Noticeably, EU Directives have emphasized a necessity of \textit{ex ante} regulatory obligations\textsuperscript{36}, especially in some circumstances where there is not effective competition, and competition law remedies are not sufficient to address the problem.\textsuperscript{37} However, the focus of the new framework is to set out those relations and procedures among the EU and Member State’s organizations. Unlike the U.S., the EU approach deals with its own factors focusing mainly on harmonizing the EU single framework and technological neutrality.

The EU’s new regulatory framework has introduced a new system of collaboration among the national regulatory authorities and the Commission. A consistent approach is developed throughout the EU single market with flexibility to deal with national markets and conditions. However, the EU competition rules are not precluded by these sector-specific rules. They are applicable to all undertakings and concerted practices which have as their object or effect the prevention, restriction or distortion of competition within the common market.\textsuperscript{38} The case of Deutsche Telekom’s margin squeeze\textsuperscript{39} in 2003 was a ruling example of EU general competition in its telecommunications industries.

Under the old regulatory framework\textsuperscript{40}, National Regulatory Authority (NRA) imposed \textit{ex ante} obligations on operators with market share exceeding 25\% of relevant market.\textsuperscript{41} Under the new framework, NRAs would impose \textit{ex ante} obligations only if there is a dominant player according to the new definition of “significant market power” (SMP)\textsuperscript{42} which has been built upon general concepts of competition law, referred to as “light regulation”, as applied to normally functioning competition.\textsuperscript{43} Therefore, the EU new regulatory framework is based on the regulatory approach focusing on two fundamental procedures. The first is to identify market definition, and the second is an analysis to identify SMP on which \textit{ex ante} regulations may be imposed.\textsuperscript{44}

(1) Market Definition Procedure: the market definition is a procedure under the provision of the Framework Directive, to define the boundary of “relevant markets” which is a ground of “market analysis”. This is the

\begin{itemize}
\item \textsuperscript{35} Directive 2002/21/EC, Article 2(c), “electronic communications service” means a service normally provided for remuneration which consists wholly or mainly in the conveyance of signals on electronic communications networks, including telecommunications services and transmission services in networks used for broadcasting, but exclude services providing, or exercising editorial control over, content transmitted using electronic communications networks and services; it does not include information society services, as defined in Article 1 of Directive 98/34/EC, which do not consist wholly or mainly in the conveyance of signals on electronic communications networks;
\item \textsuperscript{36} Directive 2002/20/EC, Recital (10), Directive 2002/21/EC, Recital (25)
\item \textsuperscript{37} Directive 2002/20/EC, Recital (13), Directive 2002/21/EC, Recital (27)
\item \textsuperscript{38} Treaty establishing the European Community, Article 81-89
\item \textsuperscript{39} OJL 263 (14 October 2003), Commission Decision of 21 May 2003 relating to a proceeding under Article 82 of the EC Treaty (Case COMP/C-1/37.451, 37.578, 37.579 — Deutsche Telekom AG)
\item \textsuperscript{40} Directive 97/33/EC
\item \textsuperscript{41} Directive 97/33/EC, Article 4(3)
\item \textsuperscript{42} Directive 2002/21/EC, Article 14, 16.
\item \textsuperscript{44} Buigues, \textit{supra} note 62, p.12.
\end{itemize}
first regulatory feature of the new framework in which the EU adopted in accordance with the principles of competition law. Moreover, the provision also provided necessary considerations taken into account for applying the market definition including “market recommendation and guidelines”, “national circumstances,” and “geographic territory”. The market recommendation and guidelines shall be regularly adopted by the Commission to identify relevant product and service markets within the electronic communications sector, in accordance with the principles of competition law. Systematically, the provision also set the initial list of relevant product and service markets. However, it is questionable of what extent is the legal binding of the recommendation, especially in regards to how each NRA would define its national market definition.

(2) Market Analysis Procedure: The next regulatory feature of the framework is a procedure of market analysis in order to find out that: (1) there are undertakings with “significant market power” on the respective relevant markets, where appropriate, in collaboration with the national competition authorities, (2) Whether a relevant market is effectively competitive,” (3) the NRA is required to determine whether to impose, maintain, amend or withdraw appropriate obligations on undertakings in accordance with the competition effectiveness.

Remarkably, the EU new regulatory framework establishes a procedural system that integrates the Community level into administrative procedure at the Member State level. The so-called Article 7 procedures require NRAs to notify the regulatory measures they intend to take to the European Commission and the other NRAs, prior to their adoption. When an NRA notifies proposed measures under the Article 7 procedures, the Commission has one month in which to assess the measures (“phase one” procedure). In case that the Commission considers the proposed measures would create a barrier to the single market or if it has serious doubts as to their compatibility with Community law, it can conduct a more detailed investigation lasting a further two months (“phase two” procedure). The commission may

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45 Directive 2002/21/EC, Article 15(3).
47 Directive 2002/21/EC, Article 15(1).
50 Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (2002/C 165/03)
51 Directive 2002/21/EC, Article 16(1).
52 Directive 2002/21/EC, Article 16(2).
54 Loetz, supra note 49, p. 1332.
55 Directive 2002/21/EC, Article 7
56 Directive 2002/21/EC, Article 7(3)
57 Directive 2002/21/EC, Article 7(4)
withdraw the draft measures together with a detailed and objective analysis, and specific proposals for amending the draft measure (“veto decision”).

As a recent remark by Viviane Reding, those EU countries which have fully implemented and efficiently applied EU rules have been the most successful in terms of competition and investment on the electronic communications markets.

Therefore, the EU telecommunications is in the need of a true internal market for Europe's electronic communications sectors.

2.2 The Phasing-out

The U.S. telecommunications

Generally, sector-specific regulations referred to as *ex ante* regulations create market distortions which are biased against an error of business doing consumer harm. General competition law referred to as *ex post* regulations is likely to bias toward another error of ensuring business to operate. The major argument is that *ex ante* regulations imposed by the regulator may not be well-defined since government officials generally lack sufficient information and incentive to make decisions. Then the market-based regulations should be the final destination of industries. The U.S. telecommunications are a good example of this transitioning policy.

It could be noted that U.S. telecommunications industry was subjected to the general competition at the beginning. The industry structure has then gradually reformed; the need of preconditioning has changed, and needed to be redefined. Interconnection issue, however, is the most required precondition in telecommunications competition preceding other issue such as universal services, price-cap, merger, etc. since it is the only factor to allow entrants compete with less network effects. The U.S. telecommunications has seen a series of regulatory controversy on interconnection since the “Kingsbury Commitment” until recently in the “Trinko” case. While there is interconnection as a sector-specific regulation, there has also been a developing doctrine: “essential facilities”, in general competition context since 1912, particularly dealing with the interconnection issue in two major cases, and then appears to be an exception to the general antitrust rule.

The essential facilities doctrine consists of four elements: (1) the control of the essential facility by a monopolist; (2) a competitor’s inability to duplicate the essential

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58 The Commission has adopted a decision requiring NRAs to withdraw their proposed measures to date only in four out of 334 cases (19 January 2006), see Europe’s Information Society, “Article 7 procedures – consolidating the EU single market for electronic communications”, eCommunications Regulation - IS Policy Fact Sheet, <http://europa.eu.int/information_society/doc/factsheets/052-art7-en.pdf>, (January 2006)
59 Directive 2002/21/EC, Article 7(4)
60 Member of the European Commission responsible for Information Society and Media
61 Reding, Viviane. “Why we need more consistency in the application of EU telecom rules”. Remark at Telecom Italia Reception, Brussels, 11 December 2006
64 United States v. Terminal R.R. Ass’n of St. Louis, 224 U.S. 383 (1912)
65 MCI Communications Corp. v. AT&T and Verizon Communications., Inc. v. Law Offices of Curtis V. Trinko, LLP
facility; (3) the denial of the use of the facility to a competitor; and (4) the feasibility of providing the facility. This was reflected in MCI Communications Corp. v. AT&T (1983) in ruling for opening up local markets to the competition in the long distance market.\(^{66}\) The doctrine could be seen in the same reasoning of interconnection under the general competition concept of “refusal to deal”.\(^{67}\) While the Telecommunications Act of 1996 imposes interconnection duty on carriers, the essential facilities doctrine requires proof that a competitor needs access to compete and the business justifications defense appears to be limited.\(^{68}\) In addition, the 1996 Act has seemed to put an end to antitrust supervision of the telecommunications industry and place jurisdiction of the markets under the FCC\(^{69}\), however, Section 601(b)(1) of the Act contains an antitrust-specific saving clause that provides, “…nothing in this Act shall be construed to modify, impair, or supersede the applicability of any of the antitrust laws”. In this viewpoint, the essential facilities doctrine could be a progressive transition for the interconnection regulation as its characteristics conform more closely to that of general competition concept.\(^{70}\)

Although the doctrine has been well established from the lower courts, the Supreme Court declined to recognize the doctrine in the Trinko case. The Court stated that “the 1996 Act's extensive provision for access makes it unnecessary to impose a judicial doctrine of forced access”.\(^{71}\) Then Trinko is likely lead to preemption of the antitrust laws.\(^{72}\) Although this had brought again a swing-back of sector-specific regulation, the virtual report of the death of the doctrine may be an exaggeration.\(^{73}\) Despite the controversial reasoning on the ruling of the Trinko case, the lower courts continue to apply the doctrine.\(^{74}\) Then the standard of the doctrine could be developed further, perhaps narrower application\(^{75}\), to fit with the requirement of general competition.

The asymmetric obligations requiring the incumbents to allow interconnections are fading out. Even the light requirement of essential facilities doctrine has been reviewed. In addition to the problem of interconnection, U.S. Court of Appeal in United States Telecom Association v. FCC (USTA I)\(^{76}\) has overturned the rules on

\(^{66}\) MCI Communications Corp. v. AT&T, 708 F.2d 1081, 1132 (7th Cir.1983)
\(^{68}\) There are 2 main reasons disfavoring the essential facilities doctrine, as put by Professor Howard A. Shelanski, Antitrust Class Spring 2007, Boalt Hall Law School:
- The doctrine provides very plausibility in punishing investors and innovators
- The doctrine turns court to regulators of a specific industry, which is not difficult and out of scope of courts.
\(^{69}\) Rubin, Jonathan L., supra note 67, p.58.
\(^{70}\) It is an objective to encourage competitors to build facilities or circumvent rather than free-ride. The doctrine is actually no greater than the only reason of no valid business justification as seen in Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585 (1985). Shelanski, supra note 68.
\(^{71}\) Verizon Communications., Inc. v. Law Offices of Curtis V. Trinko, LLP, 539 U.S. 980 (U.S. 2003)
\(^{72}\) See, for thorough critics, supra note 67, p. 58-73.
\(^{74}\) See, for example, Nobody In Particular Presents, Inc. v. Clear Channel Communications, Inc., U.S. Dist. LEXIS 5665 (D. Colo. 2004)
\(^{76}\) United States Telecom Association, et al. v. FCC and USA, No. 00-0012 (DC.Cir. 2004).
network unbundling which specifies network elements that ILECs must provide to their competitors on an unbundled basis at cost-based rates. This is another emphasis of unnecessary asymmetric regulations that it would no longer require essentially the incumbents to share their copper loops with entrants.

In sum, the U.S. telecommunications are transitioning to general competition according to the development of its market. Interconnection regulation is the major existing sector-specific regulation, which is always required to ensure the competition by imposing duty to interconnection on carriers. However, there is also the essential facilities doctrine which could probably help transitioning the interconnection in the foreseeable future. Therefore U.S. telecommunication is in the very well position of transitioning due to its business environment. It could now be noted that both of sector-specific and general competition scheme of the U.S. are very strong and mature in term of its underlying principles developed by extensive court rulings and collective arguments. Those organizations relating to the telecommunications industry have evolved through its long history. Every organization has experienced, positioned, and functioned its role in shaping the system, which have brought the system developed and operated effectively thus far. The fact that developing countries trying to imitate or adopt the U.S. telecommunication regulations may not result in the same functioning system as does the U.S.

The EU Telecommunications
One of difficulties in transitioning towards general competition is that Europe’s telecommunications industry originated in state-run monopolies, leaving a legacy of imperfect competitive conditions. Sector-specific regulation is therefore essential for as long as these former monopolists have market power, to ensure a level playing field for new market entrants. While liberalization measures were binding to the member states, the EU did not stipulate any privatization program, but left the choice to national governments. With the exception of the UK, which had privatized British Telecom in the early 1980s, most member states begun selling state owned telecommunications service providers during the 1990s. Therefore, Public Telecommunications Operators (PTOs) has been privatized typically by gradual sales in tranches. Britain and Denmark had fully relinquished ownership rights: Portugal and Spain had only retained a “golden” share. Bauer (2005) has done a survey which help to give informative statistics here about privatization in the EU. In summary, the role of the state in fixed and mobile telecommunications as owner has continually declined.

The EU new framework determines the scope of sector-specific regulation only according to the necessity for sector-specific regulation. To develop in the short term, EU finds its way to support new market entrants gaining access to the networks of incumbent operators and to provide the benefits to end users where it is effectively competitive. The EU new regulatory framework sets out a harmonized and technology neutral regime for the regulation of communications companies across the EU, which will provide industry with greater certainty and a transparent more uniform approach

across the member states. This new scheme sets out a technology neutral framework, and avoids discrimination between different technologies that might be converged to compete in the same field. In order for introducing new and innovative services and technologies, the administrative constraints should be relaxed. Then market success will depend on choices of business and investment. This market-based approach seems more preferable than the government-led approach, and closer to general competition.

An important objective underlying for technological neutrality is to promote European standards for interactive digital television. They emphasized this proposition mainly in Access Directive and Universal Service Directive in order to maintain the obligations formerly laid down in the previous provision of fully digital electronic communications networks used for the distribution of television services and open to the public to be capable of distributing wide-screen television services and programs, so that users are able to receive such programs in the format in which they were transmitted. The new framework also provided a decisive provision of “conditional access system” to ensure the technological neutrality subjected to market analysis and review. The provision focuses on considerations that denial of access or unreasonable terms and conditions having an effect would hinder the emergence of a sustainable competitive market at the retail level, or would not be in the end-user's interest. This could be considered in the same reasoning of “essential facilities” but more procedural.

In addition, Authorization Directive imposes a supplementary scheme of “general authorization” to support the technological neutrality. General authorizations allow any undertaking to build networks and offer services, subject only to general conditions that are more readily changed and adapted than the previous system of individual licenses. NRAs can only limit the number of operators in a market when there are scarce resources at stake, notably radio spectrum or numbering ranges. Moreover, there has been a fundamental shift of spectrum management to a situation where it needs a coherent policy approach, driven by social and economic objectives, in order for transitioning to digital television. Universal Service Directive also provided that Member States shall ensure the interoperability of the consumer digital television equipment. Also, the secondary trading of spectrum has been initiated and be expected to lead to more flexibility in accessing radio spectrum. With respect to

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79 Directive 2002/21/EC, Recital (18), (31), Article 8(1)
80 Directive 2002/21/EC, Recital (31)
81 Directive 2002/19/EC, Recital (4), (10), (14), Article 2(a), 4(2), 5(1)(b), 6(1), 6(3)(b)(i), Annex I
82 Directive 2002/22/EC, Recital (32), (33), Article 24, Annex VI
83 Directive 95/47/EC
84 Directive 2002/19/EC, Recital (8)
85 Directive 2002/19/EC, Article 6
86 Directive 2002/19/EC, Article 12
87 Additionally, “essential facilities” often referred to as the definition of “abuse” provided in article 82 of the Treaty establishing European Union as the ECJ used.
88 Directive 2002/20/EC, Article 3(1)
89 Directive 2002/20/EC, Article 3(3)
spectrum, this will depart from technology constraints and develop a regulatory approach which allowing operators to sell unwanted radio frequency to each other, thus reducing the risk to operators of buying the right to use radio frequency and further encouraging new operators to enter the market.  

In sum, the EU telecommunications have made a significant transitioning step to electronic communications in order to cope with technological advancement. It is also an aim to transition to general competition, but dealing with internal market harmonization simultaneously. In a prospect of interconnection, the new framework will impose obligations only when necessary procedures to analyze the market have been completed, with a result that will lead to ineffective competition. There is no further substantive provision on the issue. It is focused on procedures and collaborations between its organizations. Its transitioning seems not to be unfolded to general competition in very soon. Rather, the EU electronic communications will prepare Member States and organizations in line with market-based approach, and be able to further transition to general competition of EU internal market.

It could now be noted that EU electronic communications framework is strong in term of its prescriptive principles with objectives for liberalizing and harmonizing the internal market. Those organizations prescribed by the framework have recently established and functioned its role; however, they are not truly new organizations in the truly new system. Therefore, those organizations are well functioning. Actually, the EU systems have been developed as a part of underlying principle of internal market in order to promote competition. Member States and relevant organizations have gradually evolved since The Treaty of Rome (1957). Therefore, they are well-positioned, in transitioning towards general competition of internal market, due to their considerable experiences and collective will.

3. A Case Study of Thailand

To provide overview information of Thailand, the total population is now about 62 millions in 513,115.02 square kilometers of total area. GDP is about 4,688 billions baht and 2,759 GDP per capita in 2005. Average GDP growth is about 5.0% per year. Specifically in the sector of telecommunications, it enjoys continually growth in the number of cellular mobile phone subscribers and internet users. With a very high growth of both subscribers and service coverage in 2001-2003, operators moved very quickly to reap the greatest rewards even when the regulatory environment is still unclear. Following will describe Thailand’s characteristics in telecommunication industry in order to subsequently conclude that there is an

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93 Ministry of Finance, “Economic Data”, <http://www2.mof.go.th/econ_data.htm#thai_glance>
94 Telenor, infra note 116
opportunity for frog-leaping towards general competition with a light-handed approach.

3.1 Industry Overview and the Phasing-in

Similar to most countries, the telecommunication industry in Thailand began with its arising infrastructures provided solely by the government. It was regarded as the wise and advanced initiation of the country since the Ministry of Defense had imported the telegraph and telephone technology to accommodate its administration; then they decided to provide these services to citizens. The government began to provide telegraph and telephone services by establishing the Telegraph Department in 1884.\(^ {96}\) It was not considered a form of monopoly because the government was the only potential capital holder being able to fund, build, and operate telegraph and telephone services. The only consideration was how can a nation raise funds and provide adequate infrastructures in a least-developed country - needless to say about its deficit in technology research and development.

This was the beginning of the first phase; the government provided nationwide communications via monopoly regime. They enacted laws concerning wire and wireless technologies including Radio Telegraphy Act of 1914\(^ {97}\), Telegraphy and Telephony Act of 1934\(^ {98}\), Radio Communications Act of 1935\(^ {99}\), Radio Communications Act of 1955\(^ {100}\), and Radio and Television Broadcasting Act of 1955.\(^ {101}\) After providing telegraphy and telephony services for 70 years, the government introduced a state-owned enterprise, namely “Telephone Organization of Thailand” (TOT) in 1954\(^ {102}\) to provide a nationwide and a monopolized telephone service. In addition, the Communication Authority of Thailand (CAT) was established to provide all kinds of telecommunication services and related services other than telephone services in 1976.\(^ {103}\) However, it was a general understanding that TOT served for domestic telecommunications; while CAT served for international telecommunications, which reflected from the viewpoint of technologies before the age of the computer networking and the internet.

\(^{96}\) The Act establishing the Telegraph Department of 1884, under the reign of King Chulalongkorn (Rama V)

\(^{97}\) The Act was aimed to give the Post and Telegraph Department (PTD) monopoly power over radio telegraphy and radio telephony businesses, as amended 1921 and 1930.

\(^{98}\) The Act was aimed to give the Post and Telegraph Department (PTD) monopoly power over telegraphy, and telephony businesses, as amended 1974.

\(^{99}\) The Act was aimed to control private radio communications and broadcasting businesses by licensing regime, as amended 1938, 1940, 1942, 1948, and 1954.

\(^{100}\) The Act was aimed to regulate public and private radio communications businesses by licensing regime which is an end of radio communication monopoly, as amended 1961 and 1990.

\(^{101}\) The Act was aimed to regulate radio and television broadcasting businesses including cable television by licensing regime which is an end of broadcasting monopoly, as amended 1959, 1978, 1987.

\(^{102}\) The Act establishing “Telephone Organization of Thailand” (TOT) of 1954, which aimed to provide monopoly telephone services as a separated business organization from the Department of Post and Telegraphy, under supervision of the Ministry of Transportation. (TOT’s coverage was limited to metropolitan area: Bangkok and vicinities, at the beginning, and then be expanded to nationwide.)

\(^{103}\) The Act establishing “The Communication Authority of Thailand” (CAT) of 1976, which aimed to provide all kinds of postal and telecommunication services as a separated business organization from the Department of Post and Telegraphy, under supervision of the Ministry of Transportation.
The industry was introduced to the second phase of indirect competition. According to its monopoly market, the government granted concessions and gave rises to private telecommunication companies via its telecommunication agencies. There is a range and complexity of the concessions granted to private companies by various governmental agencies over the years. It is noted that it was not expecting for competition in this phase. Those private companies have been entitled to enjoy monopoly power of their agencies in return to sizeable investments into telecommunication infrastructures. There have been one fixed line telephone concession for the metropolitan area and another concession for provincial areas. In addition, there has been a mobile telephone concession for each frequency band, a concession of satellite communication, a concession of optical network, etc. Every concession has been done under the Build-Transfer-Operate scheme. However, according to applications of technologies, those private companies have marketed their businesses overlapping each other; the competition has been said to be introduced indirectly.

The full competition was in the main focus since the establishment of WTO. Thailand is an original member participated in the Uruguay Round and in subsequent negotiations of telecommunications. The third phase began with the movement of market reform influenced by the country’s commitment to WTO. Although Thailand did not commit fully to open its market, it did commit in major principles of “WTO Reference Paper”\(^\text{104}\) on basic telecommunication services, especially to introduce all necessary new communication acts, commencing from the year of 2006.\(^\text{105}\) Then it was put in readiness for the 2006, the starting point of free market.\(^\text{106}\) Two new major communication acts were enacted: “The Act on the Organizations to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunication Services of 2000” and “The Telecommunication Business Act of 2001”. Despite the pro-competitive purpose of both acts, Thailand has no real experience in regulating competition. Indeed, the Trade Competition Act of 1999 has been enacted prior shortly to the two new telecommunications acts. Therefore, telecommunications market has been the pilot sector towards the free market and full competition. This was the first time of the market transforming into the level playing field. Interestingly, there is no specific provision for imposing specific access or interconnection duties on a specific operator like concessionaires or even the former agencies.

Today telecommunication industry has been reformed. It employs the ubiquitous model of competition: Policy maker, Regulator, and Operators. The policy maker of Thailand is the Ministry of Information and Communication Technology on behalf of the government. The regulator is the National Telecommunication Commission (NTC), which is one of the two pillars communication commissions.\(^\text{107}\) Two

\(^{107}\) Another pillar organization is supposed to be National Broadcasting Commission (NBC); however, the new 2007 constitution have merged NBC and NTC into an agency named NBTC.
telecommunication agencies: TOT and CAT, have been privatized in July 2002 and August 2003 respectively; however, their existing private concessionaires have succeeded to operate their ventures according to the transitory provision of the Telecommunication Business Act.  

To illustrate Thailand’s telecommunication market today, it should be noted that there are no new entrants to the facilities-based competition. In the sector of fixed-line services, in a broader term of telephone services, there are 6,670,768 nationwide lines, comprising of 3,239,182 metropolitan lines and 3,431,586 provincial lines, as of year 2005. TOT was the sole fixed-line operator according to its former status of nationwide monopolist. TRUE was a TOT’s concessionaire for 2.6 million subscribers in metropolitan area; TRUE actually gained 58% of market share as of 2005. TT&T was a TOT’s concessionaire for 1.5 million subscribers in provincial areas; TT&T actually gained 44% of market share as of 2005. These 3 operators have formed the fixed-line market in which they are marketing, but less intense in competing, due to its well-defined territories.

In wireless sector, Thailand possesses a strong competitive market of 3 dominating cellular operators. Every operator has succeeded its concession from TOT or CAT into the level playing field. AIS is the first and largest cellular operator succeeded from its exclusive concession of TOT’s 900MHz whole frequency band.

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108 Telecommunication Business Act § 80
109 “Facilities-based” competition is often used in the telecommunications industry to describe competition between providers of the same or similar services, but where the service is delivered by different or proprietary means or networks. For example a broadband over power line (BPL) provider competing with a cable TV network to provide broadband Internet service is considered to be facilities-based competition. It is also called “infrastructure-based” competition. See Randal Picker, “Entry, Access and Facilities-Based Competition” (April 2004), American Law & Economics Association Annual Meetings. American Law & Economics Association 14th Annual Meeting. Working Paper 33, <http://law.bepress.com/alea/14th/art33>,
110 This is a total nationwide number in consideration that TOT has oversight of nationwide telephone services, TOT Annual Report 2005 (as visited February 25, 2007), <http://www.tot.co.th/downloads/report48EN_p007.pdf>
111 Formerly TelecomAsia Corporation, PCL. In 1991, TRUE entered into a build-transfer-operate (BTO) concession with TOT Corporation Public Company Limited (TOT) for a two million-line wireline network in the Bangkok Metropolitan Areas for a period of 25 years until 2018. In September 1995, TRUE were granted approval to expand its network by an additional 600,000 lines., see <http://www.truecorp.co.th/eng/about/about_history.jsp>
113 TT & T (Public) Company Limited has entered into the BTO agreement to jointly operate and invest in the project for expanding regional telephone network by 1 million numbers for 25 years (10/25/1993, to 10/25/2018). In September 1995, TT&T were granted approval to expand its network by an additional 500,000 lines, see <http://www.ttt.co.th/about/01_1historyen.html>
114 TOT Annual Report 2005, supra note 110, as implied from TOT’s data.
115 Advance Info Services, PLC has entered into the BTO agreement to operate mobile phone services under a joint operation agreement dated 27 March 1990, and subsequent related supplementary agreements. AIS has been granted an extension on the concession period from 20 years to 25 years, and the concession is to be returned in 2015., see <http://www.ais.co.th/>,
its exclusive concession of CAT’s 800MHz and 1800MHz whole frequency bands. DTAC now maintains its market share of 30%. True Move, a subsidiary of TRUE Corporation, is the third largest operator succeeded from its CAT’s concession as divided from 1800MHz frequency band. True Move now maintains its market share of 15%.

Moreover, another 2 mobile operators has recently entered the market but were not successful. Hutchison CAT, a joint venture between Hutchison Telecom and CAT, began marketing CDMA2000 1x network services for 25 central provinces in Thailand. Hutchison CAT now maintains its market share about 2%. Thai Mobile is a created joint venture between TOT and CAT to operate the 1900MHz. They possess less than 0.5% of market share. In addition, CAT are ongoing to market its mobile service over CDMA2000 1x under the name of “CAT CDMA” for provincial areas other than those 25 central provinces.

Competition in wireless sector is intense, and coverage expansion projects have been continually introduced, approximately 1 billions dollars in total of every operator per year. The number of subscribers have continuously increased and showed much higher growth in the last 5 years. Penetration in major urbanized areas is approaching saturation, but rural penetration is about 20-30%. The Thai market has among the lowest voice rates in the world, 1.4 Baht average return per minute. Even without the regulator until 2004, telecommunications growth in Thailand has been phenomenal 121.2% and 117.3% in the past two years alone. Every operator has raced impressively in gaining higher market shares, especially for those big threes: AIS, DTAC, True Move. Although there has never been a change in ranks

117 Total Access Communication Public Company Limited or “DTAC” has entered into the BTO agreement, since August 1989, for 27 years to operate 800 MHz and 1800 MHz frequency bands under a concession granted by the Communications Authority of Thailand (“CAT”), see <http://www.dtac.co.th/en/aboutus/profile/milestone.aspx>
118 Telenor, supra note 116.
119 True Move Co., Ltd. is a major subsidiary and affiliated companies in the True Corporation. True Move, formerly TA Orange, has entered into the BTO agreement, since March 2002, for a 1800MHz frequency band divided from DTAC, to operate under a similar concession period granted by the Communications Authority of Thailand (“CAT”), see <http://www.truecorp.co.th/eng/about/about_history.jsp>
120 Telenor, supra note 116.
121 Hutchison CAT Wireless Multimedia Ltd. is a joint venture between the Communications Authority of Thailand (CAT) and Hutchison Wireless Multimedia Holdings Limited. The company has been awarded a contract to provide marketing services for digital CDMA mobile telephone services for 25 central provinces in Thailand under a marketing services agreement which began at early 2003 until 2015, <http://www.hutch.co.th/h_press_CDMA_14_march_Eng.htm>
122 Thai Mobile is a joint venture between TOT and CAT to market mobile phone services over 1900MHz since March 2002., <http://www.thaimobile.co.th/About1.asp>
123 Telecomasia.net, "Thailand nears completion of nationwide CDMA rollout", <http://www.telecomasia.net/article.php?id_article=4182>
124 Thairath, "DTAC reminded competitors not to play very hard in pricing but quality", <http://www.thairath.co.th/news.php?section=technology03b&content=21969>
126 Telenor, supra note 116
among these three operators, the portions of market share they possess have been getting closer every year.\textsuperscript{128}

As technology advancing and converging, the playing field is also expanding. Other facilities-based services such as satellite network\textsuperscript{129}, optical network\textsuperscript{130}, and cable TV\textsuperscript{131} had been affiliated by a few major private holding companies in order to offer complementary services and solutions.\textsuperscript{132} Other than the two former state-owned enterprises, there were 5 major Thai private holding companies: Shin,\textsuperscript{133} UCOM,\textsuperscript{134} True,\textsuperscript{135} Samart,\textsuperscript{136} and Jasmine,\textsuperscript{137} competing in telecommunication industry.\textsuperscript{138}

Today the playing field has changed due to several factors; although there have been political and economic crises,\textsuperscript{139} it is noticeable that the consolidation trend of business world is prominent and inevitable. Those holdings have been taken by foreign investors in different extents. However, the facilities-based operators are still the same faces according to their succeeding ventures under the transitory provision of the Telecommunication Business Act.

3.2 Sector-Specific Regulations on Thai Telecommunications

There are a number of provisions addressing in regard of telecommunications. The utmost provision is in the 1997 Constitution\textsuperscript{140} which provides in Section 40 that:

\begin{footnotesize}
\begin{enumerate}
\item[129] Shin Satellite Public Company Limited, originally called Shinawatra Satellite, it was founded on November 7, 1991 by Shin Corporation Plc. ("Shin"), which was granted a 30-year Build-Transfer-Operate concession from the Ministry of Transport and Communications (currently transferred to the Ministry of Information Communication Technology) to operate the national satellite project. The concession expires in 2021, <http://www.thaicom.net/default_main.aspx>. Moreover, there were 5 concessionaires of VSAT services: TOT - Acumen, CAT - Siam Sat Network and Worldsat Network, PTD - Samart Telecom and CompuNet Corporation.
\item[130] Comlink Co.,Ltd., and Thai Longdistance Co.,Ltd. were two concessionaires of TOT.
\item[131] True Visions Public Company Limited (TrueVisions), formerly United Broadcasting Corporation Public Company Limited (UBC). TrueVisions was formed in 1998 by the merger of IBC and UTV. TrueVisions operates under a 25 year Build Transfer Operate (BTO) concession issued by the Mass Communication Organisation of Thailand (MCOT) which is due to expire in September 2014. The original concession was a 20 year concession starting in October 1989 but was later extended to 25 years. It launched South East Asia’s first subscriber-based television network in Bangkok in October 1989 using a MMDS transmission platform.
\item[133] Shin Corporation Public Co.,Ltd., <http://www.shincorp.com/indexen.asp>
\item[135] True Corporation Public Co.,Ltd., <http://www.truecorp.co.th/eng/index.jsp>
\item[136] Samart Corporation Public Co.,Ltd., <http://www.samartcorp.com/indexen.php >
\item[138] Rattananubal, supra note 132
\item[139] There have been 2 major crises in consideration lately; the economic crisis is in 1997, and the political crisis is the coup in 2006.
\item[140] Constitution of the Kingdom of Thailand B.E. 2540; however, at the time of this writing, there was a coup in Thailand on September 19\textsuperscript{th}, 2006. The junta has enacted the Interim Constitution B.E. 2549 (2006). The new constitution has passed the national referendum on August 24\textsuperscript{th}, 2007. The essentially similar provision is in Section 47.
\end{enumerate}
\end{footnotesize}
“Transmission frequencies for radio or television broadcasting and radio telecommunication are national communication resources for public interest.

There shall be an independent regulatory body having the duty to distribute the frequencies under paragraph one and supervise radio or television broadcasting and telecommunication businesses as provided by law.

In carrying out the act under paragraph two, regard shall be had to utmost public benefit at national and local levels in education, culture, State security, and other public interests including fair and free competition.”

This has reformed the legal structures and entities which reflected from the commitment to the WTO. Then 2 new communications laws have been enacted in order to reform the telecommunications market in compliance with the principles set out by WTO. The first is the Act on the Organizations to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunication Services of 2000.\textsuperscript{141} The other is the Telecommunication Business Act of 2001.\textsuperscript{142} There is also the Trade Competition Act of 1999\textsuperscript{143} governing on general trade competition. However, there were a very small number of 20 complaints to the Department of Internal Trade (DIT) until 2003,\textsuperscript{144} which reflects its very few experience and high dependency on the government. This study is focus on NTC and the interconnection provisions set forth in the Telecommunication Business Act of 2001.

The 2001 Act was a significant shift of the telecommunication reform. It addressed essential issues of telecommunications industry including Licensing, Access and Interconnection, Standard of Telecommunications Network and Equipments, Rights of Licensee, Rights of User, Contract for the Supply of Telecommunications Service, Fee and Tariff in Telecommunications Service, Regulatory Enforcement, and especially Transitory Provision. The major reform of the 2001 Act should be matters of licensing and interconnection which dramatically changed the business factors of industry.

(1) Licensing: the 2001 Act introduces a pro-competitive licensing system. In particular, it classifies licenses into three types, so called as (1) Service Providers; (2) Private Network Providers; and (3) Public Network Providers.\textsuperscript{145}

(2) Access and Interconnection: the 2001 Act defines a general framework of access and interconnection that it is the duty of every operator who own telecommunication network to allow others to access or interconnect to its own networks or services.\textsuperscript{146}

\textsuperscript{141} The Act on the Organizations to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunication Services B.E. 2543 (2000)
\textsuperscript{142} The Telecommunication Business Act B.E. 2544 (2001)
\textsuperscript{143} Trade Competition Act B.E. 2542 (1999)
\textsuperscript{144} Yodmuangcharoen, Siripol, “Liberalization on Trade and Investment and Thai Competition Policy”,<http://www.jitc.go.jp/eacpf/06/6_01_07.pdf>
\textsuperscript{145} The 2001 Telecommunication Business Act § 7
\textsuperscript{146} The 2001 Telecommunication Business Act § 25
From the provisions on access and interconnection, at least two considerations should be addressed. First, there is no different obligation between incumbent and others. This is different from the 1996 U.S. telecommunication Act that only incumbent LECs will be mandated. It could be noted that this provision impose the obligation of access and interconnection in general. The practical arrangements will vary in details and depend on capability of each operator. The provision language is broad but leaves room for parties to exercise their own wills to achieve collective goal of access and interconnection.

Second, there are unclear defenses for refusal to provide access, not for interconnection: (1) inadequacy of network, (2) serious technical problems which may occur, and (3) other prescribed cases. It seems arguable in every single defense. Inadequacy of a network might not be an absolute position; every network normally enhances its coverage and capacity. Reasonable period of delay time should be acceptable. Interference and obstruction of telecommunication are also very broad terms. They require much more definition which is likely to be argued. There is flexibility in language of other prescribed case but nothing has been prescribed thus far. However, NTC have announced its notification on matters of access and interconnection. The notification provides that every operator needs to announce its interconnection offer in order to let every operator meet and negotiate their own arrangement if they find difficulties. In case that the negotiation was failed, NTC would order an interim arrangement.

3.3 Considerations on Necessity of Asymmetric Regulations and the Phasing-out

As foregoing explanation, Thailand embraced sector-specific regulations for telecommunications industry since before the market reform; however, those regulations were aimed at providing telecommunications infrastructures and services by establishing PTD, TOT, and CAT. However, asymmetric regulations are not said to be established. It was rather asymmetric obligations on concessionaires resulted from their different concessions and different provisions. It was understandable at that time to grant a number of concessions in order to allow participation of private funds. Then all concession mandated operators to interconnect via TOT. Therefore, there has never been a restriction for an incumbent to provide undesirable interconnections or an unreasonable advantage for new entrants to get into the market by free riding. Even though the market reform have been influenced mostly by its commitment to the WTO, Thailand’s market have also seen much possibility opening to higher level of competition, which we call herein “general competition”. The indication of possibility could be seen from 2 arguments following: (1) asymmetric regulations of interconnection are not required; and (2) positive environment is clear in transitioning toward general competition.

(1) Asymmetric regulations are not required

Before the market reform, interconnection was not a major problem due to those concessions in effect to mandate every operator interconnecting with TOT as national telecommunications trunk exchange. Operators have found no difficulty in

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147 NTC Notification on matters of access and interconnection, article 5
148 NTC Notification on matters of access and interconnection, article 32
interconnecting with only TOT. However, should problems occur, they have to solve problems themselves and sometimes offer some benefit to TOT in return that they will be able to enhance interconnection capacity with TOT. Moreover, interconnection charges by TOT were discrete arrangements due to different concessions of different authorities. AIS was paying the lowest sum of interconnection charges because it was a direct concessionaire of TOT. This was not a very big deal because during the concession period, the competition was not that intense. The traffic usage was stable and predictable.

Shortly after the market reform, three questions have raised: (1) if this mandatory interconnection duty is still in effect with regard to the 2001 Telecommunication Business Act; (2) what is the solution today that operators have found themselves needing to enhance their interconnection capacity while centralized interconnections via TOT become insufficient; and (3) discretion of access charges and revenue share set out by concessions become unreasonable burden to operators in the reformed market. Considering the fact that Thailand’s telecommunication market has been reformed in 2001 and there is no regulator until late 2004, operators competed in the unclear regulatory environment.

Interconnection become a major problem in 2005. It was a bottleneck between mobile phone operators; users cannot make inter-network calls as proper. Because of a mandatory clause of concessions, they have been required to interconnect directly and indirectly via exchanges of TOT which cannot respond to the very high demand growth. As a former state-owned enterprise in wired line business, TOT has not taken actions promptly. NTC have waited and seen the problem without taking any action, even an analysis report to propose a solution. Almost a year later, NTC’s resolution has been announced to appoint a consulting team in resolving the problem of inter-network calls. Restrictions of interconnection between mobile operators have been resolved by bypassing TOT’s exchanges. It could be noted that the largest operator

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149 It was a system of interconnection charges plus revenue shares: AIS have been paying only revenue sharing of 15-35% to TOT, DTAC and True Move have been paying 200 baht per subscriber plus 18% of prepaid cellphone revenue to TOT, and 12-30% of revenue to CAT. True have been paying only revenue of 16-21% to TOT; and TT&T have been paying only 43.1-44.5% revenue to TOT, see Tangkitvanich, Somkiat, Taratorn Ratananarumitsorn, “Report on Telecommunication Interconnection”, Thailand Research Fund – Project on Telecommunications Reform of Thailand, (March 2003), p. 32, then the government have tried to transform the concessions to licensing system by transform revenue share into a kind of excise taxes: 2% for fixed line services and 10% for mobile phone services, see Royal Decree on Excise Tax Rates B.E. 2527 (1984), 4th amended B.E. 2546 (2003), Now the excise tax for fixed line services and mobile phone services have been amended to 0%, see Thairath, “Turning point of Thai Telecommunications”, <http://www.thairath.co.th/news.php?section=economic02 &content=35000>

150 Prachachat, “True Move Profit over night after interconnection in forced”, <http://www.ntc.or.th/index.php?option= com_content&task=view&id=2870&Itemid=27>


have taken actions very slow with insufficient amount. Until now, TOT is still trying to claim its authority over concessions.

From this viewpoint, operators have seen the necessity of interconnection, even while they have not been required to interconnect. They seek to interconnect each other without necessary role of TOT as the incumbent. The asymmetric regulation imposing on the incumbent is not needed today. Interconnection obligation as in the 2001 Telecommunication Business Act should be interpreted as general and symmetric regulations.

(2) Positive environment for the level playing field

In regard to market environment of the industry, telecommunication operators of both wired and wireless including other media in the convergence world are strong enough in open competition. Although the telecom industry has, in many respects, just recovered from the serious financial crisis experienced by the country in 1997, every operator have found their own partners to rebuild themselves, AIS has been taken by Temasek Holdings. DTAC has been taken by Telenor. True and its affiliates have been brought back into CP group: the one of largest holding group of Thailand. TT&T have found its partner: NTT DoCoMo, for its 3G nationwide project. A concern would be that TOT and CAT can compete very well in the industry.

Today operators do not have very much concern in market dominance of the incumbent. The level playing field has been set up and ready for a higher level of competition. Because there had ever been none of regulator of both general and telecommunication markets, operators have been marketing and operating its business mostly in their own efforts. The market has seen the vacuum of regulation for quite a while. Interestingly, regulatory inefficiency has been a key factor for low prices and highest growth of the industry because those operators sought to seize market share: revenue and subscribers as much as possible before any regulation being imposed. This could be an opportunity for NTC to promote competition by using the light-handed approach.

NTC is a leading agency today in regulating Thailand market especially regulating the most influential telecommunications sector. They have many lessons from various leading countries of telecommunication industry which are in transitioning towards general competition. However, it is underway to be proved of its efficiency. Competition regulations require very high skill in analyzing a number of market factors. Although another agency: the Trade Competition Commission (TCC) is in

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155 www.temasekholdings.com.sg

156 www.telenor.com

157 www.cpthailand.com

position of regulating competition in general, they have shown very little experience and much dependency under the government.\textsuperscript{159} Even though NTC have been established for few years, there are 48 orders and notifications as of October 2006 in various matters including telecommunications business, internet services, frequency allocation, radio communication standards and equipments, etc.\textsuperscript{160} NTC have also made decisions on a number of disputes between operators.\textsuperscript{161} This is a well-startup of an institutional regulator which would pave a way to more comprehensive measures like “market definition” and “market analysis” as does the EU. NTC are now in good position especially when asymmetric regulations are not required.

4. Conclusion

U.S. telecommunications is historically unique in its path, especially of its competition experiences throughout the century. It has been imposing many kinds of government intervention, court rulings, sector-specific regulations, etc., together with its leading position of technology, which brought the industry great maturity than others. With regard to transitioning towards general competition, this article has emphasized a necessity of interconnection regulations as a sector-specific regulation of the industry. However, U.S. antitrust law has developed its own doctrine of “essential facilities”, which coped directly with the matter of interconnection. Despite the implied repudiation of the Supreme Court, essential facilities is the well-established doctrine in the reasoning of refusal to deal that could be developed in line with general competition. This could be a foreseeable way of transitioning in prospect of interconnection towards general competition.

In comparison to the EU, the new regulatory framework aims at overhauling and re-systemizing the EU telecommunications regulations, with extension of the scope to cover broadcasting networks and services. The new framework keeps continuing the process of harmonization, but imposes high level of interplay among EU organizations in order to seek the greater objective of consistency across Member States via consultation between regulators and the Commission. Therefore, the new framework adopts an approach more in line with the principles of general competition law. The underlying concept for encouraging competition is to lighten substantive regulation and strengthen procedural regulation, as competition increases and technologies converge, that \textit{ex ante} obligations need to be imposed only where competition is ineffective. Noticeably, the imposition of procedural systems and collaboration between organizations is a concern on integration which is not a major consideration in the U.S. systems.

\textsuperscript{159} Even though the TCC is considered as the general trade regulator, the Commission consists of a number of government officials including the Minister of Commerce as Chairman, Permanent-Secretary for Commerce as Vice-Chairman, Permanent-Secretary for Finance and etc. The 1999 Act also provides that the Commission member must not be a political official, holder of a political position, executive member or holder of a position with the responsibility in the administration of a political party. Its independency is ensured in an extent of restricting political influence. However, the TCC is functioning as a part of the Department of Internal Trade (DIT), Ministry of Commerce. Until 2003, there were only 20 complaints to the DIT, which is very small number, which reflects its very little experience and high dependency on the government.

\textsuperscript{160} National Telecommunications Commission, \textit{Laws and Regulations on Telecommunication Business}, Vol.2, 2006

\textsuperscript{161} “Total Access Communications v. TOT”, Dispute resolution No. 1/2550, June 18, 2007
Despite controversial arguments on detail applications of both systems, they find their development paths with consideration of their own factors. As of foregoing discussions, U.S. telecommunications have developed in dealing with powerful incumbent carriers. EU telecommunications have developed in dealing with liberalization and harmonization for the principle of internal market. However, those ex ante obligations in both U.S. and EU are likely to impose to give access to essential facilities with clear applications in regard to general competition law in order to facilitate end-users rather than particular competitors. This prospect of transitioning towards general competition is thereby obvious.

Thailand’s prospect has been in very well position of transitioning towards general competition. In comparison to the very long developments of the U.S. and EU, Thai telecommunications are not necessary to deal with the problem of the incumbent and asymmetric regulations. Therefore, Thai telecommunication market has been truly opened right after the privatization. Competition level has been very high even in the vacuum period of regulation. It is seemed that operators have been competing in open competition for quite a while. Significantly, they all are still in market place. No one got beaten out. Operators have proved their readiness to the higher level competition.

Unlike the U.S. and EU, it is not conventional circumstance of Thailand that operators seek to interconnect among them other than the incumbent. Well-developed principles of asymmetric regulations or ex ante obligations are seemed unnecessary and inappropriate to the situation. Today Thailand needs not to impose those asymmetric regulations to persuade new entrants. Principles like essential facilities are not required for today situation. It seems that Thailand has found its shortcut toward general competition. With regard to the transitioning prospect, Existing rules including the 2000 Act on the Organizations and the 2001 Telecommunications Business Act are well defined. They only require interpretations in the way that promote general competition. Transitioning towards general competition should be focused; light-handed regulation then should be imposed. It is an important ground to provide competitive environment that would allow operators and other private companies to find their way in competing and developing the industry where ex ante regulations are not necessary.

5. Selected References


Boutheina Guermazi, “Exploring the Reference Paper on Regulatory principles”, Centre for the Study of Regulated Industries, McGill University,


