

The Impact of Technological Convergence on the Regulatory Structure of Brazilian Telecommunications

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1 Introduction

This short paper aims at describing the Brazilian stance concerning the impact of technological convergence on the regulatory structure of Brazilian telecommunication sector. The implications of technological convergence on the regulatory structures clearly point out that ongoing regulatory regimes shall be reviewed. The new attitude and actions in this concern must be undertaken in accordance with the expectations from telecommunication services providers and consumers. It should be borne in mind that the main objective must be the promotion of greater benefits to the society as a whole through a growing availability of convergent services. For a better understanding of this issue, this paper was divided into the following topics: technological convergence; Anatel's regulatory action; future actions and conclusion.

2 Technological Convergence

Among the several existing concepts for technological convergence, we have chosen referring to it as a process of successive similarity formation between technologies previously distinct. These technologies once established clear border of the services they could eventually make available. However, they presently share the same digital environment.

In this scenario, regulatory authorities and agencies are likely to undertake measures to reform legislation and regulation as a result of a long-term analysis on the impacts of technological convergence. Meanwhile, when this situation is just part of a theoretical exercise, there is no need for regulators to stand still for technologies and services are evolving rapidly and making obsolete a great amount of legal and regulatory provisions. In this sense, regulatory uncertainties should be timely and expeditiously removed in order to allow the continuous growth of the telecommunication sector.

As a primary step towards a flexible regulatory framework, technologies and platforms should be considered as neutral. This would allow that gradual or radical innovations to be easily assimilated, bearing in mind the expectations and interests of users and service providers. The technological convergence will certainly be a significant challenge to be faced by telecommunication, broadcasting and computer industry sectors.

In addition, there are several questions to be addressed concerning the future of these services, in particular, the risks and opportunities determined by regulatory and institutional changes. On the

one hand, concerning the risks, we can indicate: reduction on usefulness of a great number of regulatory principles; increase in the number of complains from users and operators to regulator; reduction on the time limit for hard regulation; difficulties in inspection; and rise in the number of conflicts among operators. On the other hand, Concerning the opportunities, we emphasise: reduction on the final cost of services available for users; reduction on the complexity of regulation; reductions on the barriers for the entrance of new competitors; increase in the number of users; support for market growth and stimulus on the demand for services; better quality for supplied services; increase in the number of options of operators to users; and rise in competition level.

3 Anatel's Regulatory Action

Anatel has been developing actions considering technological convergence. The prime objective of such actions is to establish in Brazil a modern and efficient telecommunication infrastructure that can offer to the entire population telecommunication services at fair prices. Secondly, Anatel's regulatory action is concerned to structuring regulators and telecommunications sector according to technological convergence. We highlight the following regulations:

3.1 Regulation on the Use of Networks of Paid Mass Communication Services for Provision of Added Value Services - Approved by Resolution nr 190/1999.

It covers DTH, MMDS and Cable TV in order to make available telecommunication networks to all added value service providers, allow the network owner to explore SVA only through constituting an enterprise with this end, allows access to added value services only to pay-TV subscribers, increase competition between providers and access networks (Cable TV x PSTN), make it possible to connect pay-TV networks to the Internet backbone without preventing access via connection service providers. The Paid Electronic Mass Communication Services providers are then able to commercialise access to the Internet for added-value service providers.

3.2 Regulation on Sharing of Infrastructure between Enterprises engaged in Providing Telecommunication Services - Public Consultation under nr 239/2000.

It observes the principles from article 73 of LGT and the provisions contained in the Joint Regulation (Aneel, Anatel e ANP), defines a methodology to calculate minimum and maximum reference prices and indicates the situation in which the mediation process from Anatel is suitable.

3.3 Regulation on Multimedia Communication Services - Public Consultation under nr 246/2000.

It establishes that new convergent services are independent from platform and provides that network capacity should be sufficient for multimedia applications, as data, images, sound and video, texts, etc. It does not cover PSTN, broadcasting and pay-TV services for the time being.

3.4 Regulation on Paid Mass Electronic Communication Services (SCEMa).

It contemplates the term "electronic", suitable for the telecommunications context; authorisation of services independently of licensing on authorisation for the use of radiofrequency; regulation of services independently of technology use for service provision; significant advances in the service provider-user relationship.

3.5 Regulation on Indicators of Paid Mass Electronic Communication Services (SCEMa).

It provides ANATEL with technical, operational, economic, and administrative information, regarding SCEMa provider, features as a control tool for supervising SCEMa providers' obligations and serves as an official source of information to society and investors.

3.6 Guidelines for Authorising the Use of Radiofrequency to Collective Interest Telecommunication Service Provision.

It establishes basic guidelines for authorising the use of RF for telecommunication services of public interest in certain frequency bands.

3.7 Regulation on the Use of Telecommunication Networks.

It disciplines the use of telecommunication networks by telecommunication service provider or SVA provider and provides citizens with access to infrastructure, world standards and great range of services, at reasonable prices.

Furthermore, we can also cite:

3.8 Joint Regulation on Infra-Structure Sharing between the Sectors of Electrical Energy, Telecommunications and Petroleum - 1999;

3.9 Modification of article 4° of the Regulation on Telecommunications Services, approved by Anatel's Resolution nr 73 - 2000;

3.10 Destination of Frequency Bands from 2.170 MHz to 2.182 MHz for use as return channel through radiofrequency (RF), in the Service of Multichannel Multipoint Distribution System (MMDS) - 2000;

3.11 Joint Regulation on Mediation of Regulatory Agencies from Electrical Energy, Telecommunications and Petroleum Sectors;

3.12 Regulation on Services with Scientific or Experimental Purposes.

Anatel's Future Actions

Aiming at evaluating the impact of technological convergence on the sectors of telecommunications, broadcasting and information, Anatel has determined, for the next year, to contract consulting support, in collaboration with the ITU, to study: the impacts of latest technological developments, the substitution of hardware by software in platforms of telecommunication services, the digitalisation of signals in the provision of several types of services, and the multiservice transport networks and its applications. As a result, Anatel expects to obtain an accurate analysis of the present and future scenarios, as well as of the risks and opportunities for the development of telecommunications sector, including broadcasting and information services, a description of future scenario for technological development for this sector and how these elements can affect the many different forms of telecommunications (transmission of voice signals, video data, and multimedia, etc.) in urban and rural areas. Proceeding in this way, Anatel can constitute a regulatory and licensing framework capable of promoting the harmonic development of telecommunications, redefine an organisational structure of the Agency and establish a plan of action in this regard.

Conclusion

While the process of technological convergence evolves throughout the world, political strategies need to be found in order to indicate at what point the rhythm for establishing convergence services can be accelerated, thereby we all share the same idea on the direction the global society is heading. Going back to the concept of evolutionary progress in which telecommunication, broadcasting and computer technologies have engaged, it can be said that digital environment established the direction for a ubiquitous provision of convergent services in the near future.