

TELECOMMUNICATION COST AND TARIFF MODEL IN BRAZIL

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1 INTRODUCTION

Since the privatization of Brazil's telecommunication sector in 1998, its development has brought significant advances, but also many challenges on the regulatory side. The advances can be seen in the following indicators¹:

Brazil – selected telecom service indicators for 1998 and 2005

Indicator	1998	2005
Fixed access points installed (millions)	22.1	50.3
Fixed access points in service (millions)	20.0	39.6
Incorrect accounts per 1000 accounts	9.94	1.64
Local network digitization (%)	67.6	99.9
Fixed access points in service per 100 inhabitants	12.5	21.5
Number of cellular terminals (millions)	7.40	75.5
Number of cellular terminals per 100 inhabitants	5	41
Public telephone booths in service per 100 inhabitants	34	69

Note: The 1998 data are for the month of July

The 2005 data are for the month of December

Source: Anatel

However, the numerous challenges to be met in the current regulatory phase include the following:

- updating of the regulatory framework against a background of technological convergence;
- organizational restructuring in order to strengthen economic and financial regulation, with a reduction of the current information imbalances;
- constant improvement of the regulatory machinery in order to stimulate fresh investment leading to efficiency gains on the part of the regulated parties and the passing on to society of some of the ensuing benefits.

Decree 4.733 of 10 June 2003, relating to government policy in the telecommunication sphere, provided the following in its Article 7:

"I – Interconnection and unbundling tariffs will be determined through the adoption of a long-run incremental cost model, with the economic conditions necessary for the ongoing fulfilment of universal service goals by licensees being maintained."

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¹ These indicators and other information may be found at www.anatel.gov.br by following the link "Indicadores".

The decree was published at a time when Brazil's institutional environment had just, in 2002, emerged from a period of major instability caused by uncertainty in relation to the new federal administration. It may be recalled in this regard that the Brazil risk index (EMBI Brazil) rose from some 700 base-points in March 2002 to 2 400 base-points in September of the same year. Following that transitional period, the Brazilian economy began to return to normal, and by the end of March of this year the risk index stood at around 230 base-points.

In the telecommunication sector, the institutional climate in the period 2002-2003 reflected society's strong reaction to the effects of the continued indexation of public tariffs in general and telephony tariffs in particular, while market prices, no longer indexed, were rising more slowly or remaining stable. In the period from May 1998 to May 2005, while the IPCA consumer price index, Brazil's official inflation index, rose by 68.72 per cent, the Monitored Prices Index², which reflects the evolution of public tariffs, rose by 127.58 per cent. This behaviour is very similar to that of the General Price Index – Domestic Supply, which indexed tariffs in the public telephony sector, which rose by 127.45 per cent in the same period³.

In this climate, the basing of interconnection tariffs on long-run costs became government policy in Brazil's telecommunication sector, with the expectation that this policy might serve to reduce both those tariffs and the public tariffs, for which they are inputs.

2 LONG-RUN COST MODEL

Two contractual periods may be identified in the regulator-regulated party relationship pertaining to the fixed switched fixed telephone service (FSTS) in Brazil: the period running from privatization in June 1998 to 31 December 2005; and the period covering the renewal of the licence contracts, from 1 January 2006 to 31 December 2025.

During the first contractual period, the maximum tariffs for use of the network were those established by Ministry of Communications Ordinance (*Portaria*) No. 2.505 of 20 December 1996 (price-cap regime). The ordinance established the maximum values (net of tax) for local network usage tariffs, long-distance network usage tariffs and mobile network usage tariffs. Since then, the local network usage tariff has been annually adjusted in line with the General Price Index – Domestic Supply of the Getúlio Vargas Foundation, less an annual predefined hedge of 5% in 2001, 10% in 2002, 15% in 2003 and 20% in 2004 and 2005.

As from the second contractual period, new licence contracts stipulate the following in regard to interconnection tariffs:

"With effect from 1 January 2008, the local network usage tariff will be expressed in values that take account of the long-run cost model established under the terms of the relevant regulations in force..." (§ 25.2 of new licence contracts).

² The prices monitored account for some 30% of the IPCA index.

³ For Brazilian economic indices, see www.ipeadata.gov.br.

During the period 1 January 2006 to 31 December 2007, the maximum local network usage tariffs are limited to 50% (in 2006) and 40% (in 2007) of the local service usage tariffs (retail-based). In the event that the application of this rule results in an increase in the value of the local service usage tariff, those values may be implemented only as from the next adjustment of the local service usage tariffs⁴.

Following the definition of the long-run cost-oriented interconnection tariff policy, effective as from 1 January 2008, Anatel, with the assistance of a consultancy firm, sought the public's opinion on the changes that would be made through Resolution 396 of 31 March 2005.

Resolution 396 approved the Regulations on Separation and Allocation of Accounts (RSAA) (Art. 1) and provided that an Accounts Separation and Allocation Document (ASAD) must be submitted to Anatel by FSTS licensees and by groups holding significant market power in the provision of FSTS network interconnection, personal mobile service network interconnection and industrial dedicated line services (Art. 2).

The dates for submission of the ASAD, by both fixed and mobile telephony operators, were left subject to resolutions to be drawn up by Anatel at a later stage.

By Resolution 419 of 24 November 2005, Anatel approved the date of 30 April 2006 for submission of the ASAD by FSTS licensees.

The date for submission of the ASAD by mobile telephony operators has not yet been set by the Agency.

2.1 BASIC STRUCTURE OF THE ACCOUNTS SEPARATION AND ALLOCATION DOCUMENT (ASAD)

The ASAD comprises three main information blocks and has the following basic structure:

I => Historical cost accounting (HCA) base, whereby costs are allocated to the network elements and products according to the fully allocated costs (FAC) model.

This calls for:

- division of the group into business areas and product lines;
- allocation of revenues, costs, business assets and liabilities, and network elements and products.

The costs include the weighted average cost of capital (WACC) to be determined by Anatel.

The cost allocation methodology used should be activity-based costing (ABC), whereby costs are allocated according to their drivers.

⁴ The maximum local network usage tariffs approved with effect from 1 January 2006 range from R\$ 0.03371 to R\$ 0.03737 per minute, depending on the area covered by the licence. At the average commercial dollar exchange rate applicable at 02/01/2006 (R\$ 2.3370), these values are equivalent to USD 0.014 and USD 0.016 per minute, and are net of social contributions. Long-distance network usage tariffs during normal hours range from R\$ 0.08277 to R\$ 0.11139 per minute, depending on the sector and on the area covered by the licence, this being equivalent to USD 0.035 to USD 0.048 per minute.

- Appendices: A – Information on demand and physical data
B – Forecasting of demand and physical data
C – General plan for separation and allocation of accounts
D – Accounting information by type of service

II => Current cost accounting (CCA) base, which seeks to establish criteria and parameters for transforming HCA into CCA for the products supplied by the groups.

This should be constructed having regard to the efficient use of assets and resources, taking the group's actual network as a basis. It takes account of the classification of operational assets: current technology, substitute technology, etc.

III => Long-run incremental costs (LRIC) of the network elements and products. The LRIC applies solely to the network elements and products of the network business area.

This calls for:

- the construction of cost-volume relationships (CVR) in order to determine the amount by which the long-run cost increases in the various cost groups following an increase in the supply of a given network element or product.

In the ASAD submission it is hoped to receive the operator's version (top-down), Anatel's contractual version (bottom-up), and a reconciliation between the two.

2.2 CURRENT ACTIONS

Bearing in mind the budgetary restrictions currently being faced, the Agency opted in September 2005, by way of a short-term measure, for the establishment of a Cost-Model Commission (CMC) comprising officials from the Public and Private Services *Superintendencias*. The CMC is responsible for: a) developing operational procedures for responding to questions raised by telecommunication operators; b) working with the Agency's information technology unit on the development of a databank and interface for the reception of operator data; and c) making arrangements for the hiring of specialist consultants to develop the cost model and assistance in implementation of the project.

As a result of the CMC's work, the following actions have been set in motion in cooperation with various units, particularly the information technology unit:

- Development of a consultative mechanism for responding to telecommunication operators. Questions submitted by the latter are evaluated by the CMC and the responses are submitted to the Public and Private Services *Superintendencias* for approval. The results of consultations are posted on Anatel's website at the location *Telefonia Fixa/STFC/Separação e Alocação de Contas*.
- Development of an interface for the electronic submission by operators, and receipt by Anatel, of ASAD information.
- Elaboration of terms of reference for the hiring of three consultancy firms to deal, respectively, with the areas of: project management; validation of the top-down ASAD received from operators; and construction of the bottom-up (efficient network) version and reconciliation.

As can be seen, the tasks for which the CMC was created have been completed, with the exception of those that depend on the availability of financial resources (hiring of consultants).

3 TIME-FRAME

Submission of the ASAD by FSTS licensees is foreseen as follows:

- 30 April 2006 => Submission by FSTS licensees of the FAC-HCA => Costs totally allocated on historical bases.
- 30 April 2007 => Submission by FSTS licensees of the CCA/LRIC => Costs on current bases/LRIC for use as from 2008 in the definition of local network usage tariffs.
- Mobile telephony => Awaiting a resolution from Anatel. The intention is to use the FAC-HCA and FAC-CCA information in defining reference values in regard to use of the RVU-M mobile network for the resolution of conflicts between companies negotiating mobile network usage tariffs.

4 CHALLENGES

It should be noted that the ASAD project now under way, which stems from the Brazilian Government's telecommunication sector policy, is quite ambitious, and that its possible outcomes are still unknown.

That having been said, however, the following is a summary of initial trends and immediate difficulties:

- Strategic use of the ASAD by telephony licensees. The ASAD project, which in its early stages may have been viewed as a unilateral course of action on the part of the Government, with foreseeable resistance from the regulated parties, appears instead to have been perceived by the latter as an important cost management and results monitoring tool. This perception, coupled with the fact that submission of the document is mandatory, seems to have made the ASAD project into a priority for FSTS licensees.
- Budgetary restrictions. The budgetary restrictions on the Agency's work with the ASAD and construction of the bottom-up version (efficient network) are tending to slow down the processing of the information to be received from the regulated parties.
- International experience. Although Anatel systematically participates in international fora dealing with the matter under consideration, and despite the fact that a number of technical visits have taken place, there is a need to broaden the exchange of experiences with agencies in other countries that have already made progress in this field. At the same time, Anatel's experience could be made available to other regulatory bodies.
- New learning. The subject-matter under discussion is relatively new to Anatel and calls for the setting-up of teams to work with the project on a full-time basis. This learning process includes an additional and not insignificant challenge in terms of appropriate use of the tool, both by the regulator and the regulated party. For the regulator, it is important to understand that introduction of the ASAD is framed within a context of fostering both new investment and efficiency gains that can be shared by the users. For its part, the regulated party needs to understand that sound governance characterized by transparent management is a profitable strategy in the long term.

5 CONCLUSIONS

- Two contractual periods mark the relationship between Anatel and the FSTS licensees: the period from June 1998 to 31 December 2005, and the period from 1 January 2006 to 31 December 2025.

- In the first contractual period, the prevailing regime was that of maximum prices with a predetermined reduction factor for interconnection.
- Decree 4.733 of 10 June 2003 introduced a long-run cost policy in regard to interconnection.
- In the second contractual period, it was decided that values for the local network usage tariff that took account of the long-run cost model would be adopted with effect from 1 January 2008.
- By Resolution 396 of 31 March 2005, Anatel approved the Regulations on Separation and Allocation of Accounts (RSAA), in which it is provided that an Accounts Separation and Allocation Document (ASAD) must be submitted to Anatel by FSTS licence-holders and by groups holding significant market power in the provision of FSTS network interconnection, personal mobile service network interconnection and industrial dedicated line services.
- By Resolution 419 of 24 November 2005, Anatel approved the date of 30 April 2006 for submission of the ASAD by FSTS licence-holders. The date for submission of the ASAD by mobile telephony operators has not yet been set by the Agency.
- The ASAD comprises three main information blocks: a historical cost base (fully allocated costs – historical cost accounting (FAC-HCA)); a current cost base (current cost accounting (CCA)); and long-run incremental costs (LRIC).
- As a short-term measure, Anatel set up a Cost-Model Commission (CMC) which implemented machinery intended to clear up any uncertainties that telecommunication companies may have in relation to the ASAD, prepared the ground for the establishment of a databank for electronic submission of the ASAD, and drew up terms of reference for the hiring of specialist consultancy firms.
- For telecommunication companies, the ASAD could come to be an important tool in the strategic decision-making process, since it allows for the identification of costs and results by business area and product.
- The budgetary restrictions affecting Anatel could slow down the processing of the information derived from the ASAD.
- There has to be an improved awareness of international experience through exchanges with agencies having already introduced similar models.
- For regulator and regulated party alike, development of the ASAD calls for fresh learning that includes appropriate use of the new regulatory tool.
- Anatel is ready to share its learning with other agencies.

Brasília, 18 April 2006

REFERENCES

ANATEL- Agência Nacional de Telecomunicações. Resolution 396 of 31 March 2005, approving the Regulations on Separation and Allocation of Accounts.

Resolution 410 of 11 July 2005, approving the General Regulations on Interconnection.

Resolution 419 of 24 November 2005, approving the time-frame for submission by FSTS licensees of the Accounts Separation and Allocation Document (ASAD).

Licence contracts for the fixed switched telephone service (FSTS), first and second contractual period.

Act 54.694 of 13 December 2005, setting the maximum local network usage tariffs, net of social contributions.

Act 54.693 of 13 December 2005, setting the maximum domestic long-distance service tariffs.

BRAZIL. Presidency of the Republic. Decree 4.733 of 10 June 2003, containing provisions on government telecommunication policies and other matters.

USEFUL SITES

www.anatel.gov.br Site of the Agência Nacional de Telecomunicações (Anatel)

www.ipeadata.gov.br Database site of the Institute of Applied Economic Research (IPEA)