



LRIC Bottom-up model for interconnection

Consultation Document 1.0

Summary of the comments

Decisions taken by the BIPT

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In collaboration with Bureau van Dijk Management Consultants

7th June 2001

Consultation Document Bottom-up LRIC model

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1. INTRODUCTION

1.1 Background and structure of the document

On May 7th 2001, a first consultation document on the LRIC Bottom-up model for interconnection was sent to the operators. We would like to thank all operators who gave us their views on the various subjects.

This present document gives a summary of the comments on each question, followed by the decision taken by the BIPT. The reasoning behind each decision is explained or can be found in the initial consultation document.

In general, the following considerations were made while determining the scope and the methodology of the LRIC Bottom-up model:

- *Objective of the Bottom-up model:* the first objective of the bottom-up model is to develop a model for *interconnection*.
- *Planning for the development of the Bottom-up model:* the decision whether or not another service than the interconnection services is included, depends mainly on the trade-off between timing and scope of the model.

1.2 Next steps

Based on the reactions on the first consultation document, a second consultation document will be provided on the implementation of the methodology. Up to now, the date for issuing this document has not been fixed.

2. SCOPE OF THE BOTTOM-UP MODEL

Question 2.1: *Should the access network be included in the initial bottom-up model. If yes, please indicate what would be the added value of modelling the access network.*

Summary of the comments

The following arguments were raised for including the access network:

- ✍ The inclusion of the access network would be very useful for the regulation of access in the light of the local loop unbundling;
- ✍ The inclusion of the access network would enable a detailed attribution of the common and joint costs;
- ✍ The inclusion of the access network would prevent that economies of scale between the access and the core network are ignored.

Arguments against including the access network:

- ✍ The costs related to the access network are not relevant for the interconnection tariffs;
- ✍ The inclusion of the access network would considerably delay the results of the first version of the bottom-up model.

Decision taken by the BIPT

The access network will not be modelled in the first version of the LRIC Bottom-up model. The BIPT considers the possibility of developing a bottom-up model for the access network once the core network is modelled.

Motivation / Remarks

The BIPT recognises the need of modelling the access network in the light of local loop unbundling. However, the modelling of the access network is not a requirement for determining the interconnection tariffs. Additionally, the inclusion of the access network in the first version of the bottom-up model would to a large extent delay the provision of the results of this model.

Question 2.2: *Where can the boundary between the core network and the access network presently be drawn?*

Summary of the comments

The access network consists of all network elements from the customer termination point, up to and including the line card. This line card can be situated either at the Local Exchange (LEX) or at the Local Distribution Center (LDC). This means that the costs of the LEX or LDC are split between the access network and the core network: all components that are

sensitive to the number of lines (and thus designed to serve one individual subscriber) will be attributed to the access network.

Decision taken by the BIPT

The BIPT will define the boundary between the access network and the core network as the line card. The line card is part of the access network as one individual subscriber uses it.

Motivation / Remarks

Taking the line card as boundary between the access network and the core network is fully in accordance with the definition of the 'Local Access-Network' in the Recommendation C(98)960 of the European Commission: *'This will include those components of the network which are not traffic sensitive and are dedicated to a particular customer including, for example, the local loops and the line cards and ports located at concentrators and/or exchanges'* and with the bottom-up models for interconnection developed in other countries.

Question 2.3: *For which services LRIC estimation is required? Should Internet and leased line services be included? Please motivate your answer.*

Summary of the comments

Almost all operators agree that all interconnection services should be included in the model. One operator argues that the collecting services should not be included.

When it comes to Internet traffic, a distinction has to be made between Internet traffic via the IP-network and dial-in Internet traffic. The dial-in Internet traffic follows the same route as collecting voice traffic and the volume should therefore be included in the model.

Concerning the leased lines, most operators believe that they should also be included as they are sharing a lot of facilities with the interconnection services.

Decision taken by the BIPT

The LRIC estimation will be made for all interconnection services. In accordance to the existing top-down model of the BIPT, the terminating services will include the volume of 'Value Added Services' (VAS) and the collecting services will include the volume of Internet traffic that is not handled via the IP-network (i.e. the 'dial up internet traffic').

The leased lines will not be explicitly taken into account in the first version of the bottom-up model.

Motivation / Remarks

The first objective of the bottom-up model is to calculate interconnection tariffs. This means that in the first version of the model, no tariffs the leased lines will be calculated. However, the existence of these services will be taken into account when attributing the joint and common costs.

3. METHODOLOGY

3.1 The use of LRIC

Question 3.1: Do you agree that LRIC should be calculated on the basis of MEAs? If not, please motivate.

Summary of the comments

The market generally accepts the valuation of assets using the cost of the ‘Modern Equivalent Asset’.

Decision taken by the BIPT

In the bottom-up model, the assets will be valued using the cost of the ‘Modern Equivalent Asset’.

Motivation / Remarks

The BIPT is convinced that a valuation using the cost of the ‘Modern Equivalent Asset’ gives the best incentives for efficient network investment decisions.

Some operators already gave some remarks on how to implement a MEA-valuation. The BIPT welcomes these remarks, but likes to clarify that the actual application of the MEA-valuation will be the object of the second consultation document

Question 3.2: Should the increment be defined as either the incremental cost of the interconnection traffic or of total traffic? Please motivate your answer.

Question 3.3: If the BIPT would opt for defining the increment as total traffic, what would be the impact on investments in competing networks?

Summary of the comments

Only one operator prefers to take only the interconnection traffic as the relevant increment. All other operators agree that all services (total traffic) should be taken into account when defining the increment. This choice of the increment should increase network investment incentives. One operator remarks that LRIC-results will always be too low to really stimulate investments in alternative networks, it stresses the need for reconciliation of the results of the bottom-up model with those of the top-down model.

Decision taken by the BIPT

The increment taken into account will be defined as the entirety of all relevant services. Services such as ‘Internet over the IP-network’ will not be included, as they do not intervene in the dimensioning of the network relevant for interconnection services.

Motivation / Remarks

Defining the size of the increment as the entirety of all relevant services is fully in accordance with the recommendation of the European Commission. It allows the incumbent to recover part of its joint and common costs by means of the interconnection charges. It may also tend to encourage investment in competing networks and reflect the real costs of new entrants.

3.2 Scorched earth versus scorched node modelling

Question 3.4: *What approach should the BIPT take for its bottom-up model? What will be the impact of this approach on current interconnection tariffs and on infrastructure investments by the incumbent, as well as the OLOs? Please motivate your answer.*

Summary of the comments

Only one operator argues that the scorched node approach should be taken. All the other operators agree that the modified scorched node is the most appropriate approach.

Decision taken by the BIPT

The BIPT will apply the modified scorched node approach in its bottom-up model.

Motivation / Remarks

This approach acknowledges that it might be impossible for the incumbent to base its tariffs on a network structure that would be completely rebuilt. However, it encourages the incumbent to improve its efficiency by redesigning the network structure (e.g. by moving nodes from local exchanges to concentrators).

4. PLANNING

Question 4.1: *What do you consider an adequate time span to arrive at a first result of the bottom-up model?*

Summary of the comments

The suggested time frame of delivering a first draft for discussion by the end of this year seems reasonable to most of the operators as far as the scope of the first model is limited to the core network. Several operators underline that the planning will always largely depend on the cooperation of all interested parties.

Decision taken by the BIPT

The objective of the BIPT is to obtain the first stable results of the model by the end of this year.

Motivation / Remarks

As the first stable results are expected for the end of this year, this means that for the verification of the interconnection tariffs in the BRIO¹ 2002, the updated top-down model will stay the leading model. Reconciliation with the bottom-up model will be made afterwards to get a better insight in the differences between the two models.

¹ Belgacom Reference Interconnect Offer (BRIO)