Consultation document

Tariff regulation for interconnection and special access services

The introduction of a new regulatory concept

OPTA, 21st December 2000

OPTA/IBT/2000/203518

This document comprises the translation into English of the consultation document titled "Tariefregulering voor interconnectie- en bijzondere toegangsdiensten. De introductie van een nieuw reguleringsconcept, OPTA 21 december 2000" (marked OPTA/IBT/2000/203518).

In case of any deviations between this translation and the original version in Dutch, the text of the Dutch version prevails.

Foreword

In its decision of 16 December 1999, the Commission of the Independent Post and Telecommunication Authority (hereinafter called the "Commission") determined that the EDC systematic, used up until that point to assess the cost orientation for the tariffs proposed by KPN for its interconnection and special access services, would eventually be insufficient to meet the demands that would be placed on such a system in light of the objectives that would need be met by the telecommunications market.

This conclusion has led the Commission to take the viewpoint that the EDC systematic should not be used after 1st July 2000, and a switch should be made to a system based on the expected average forward looking incremental long run costs, which would be based on a 'bottom up' model. Such a switch might possibly involve the introduction of a transitional regime.

In order to give a more concrete structure to this viewpoint, the decision of 16th December 1999 also states the Commission's intention to set out policy proposals about which the market will be consulted. These policy proposals are set out in this consultation document.

The publication of this consultation document signifies the start of a five-week consultation period, which will end on 26th January 2001. Parties are invited to submit written reactions and comments about the proposals set out in this document to the Commission in writing no later than 26th January 2001. As part of the consultation process, a public hearing will be organised on 17th January 2001, where parties will be given the opportunity to give their reaction to the Commission in person.

The results of the consultation process will be taken into consideration by the Commission when the definitive policy proposals are drawn up. The market will be given detailed information about this in a document that will be published in the first quarter of 2001 (which will include a summary of the reactions and the evaluation of those reactions by the Commission).

Contents

Chapter 1. Introduction

1. Under article 20.1, paragraph 1, of the Telecommunications Act (hereinafter "TA")[1], KPN was designated as the so-called party with significant influence (hereinafter "AMM") in the market for public fixed telephony and leased lines. A decision was taken by the Commission on 15th November 2000 (Ref: OPTA/EGM/2000/202722) to designate KPN as the AMM party in the market for fixed public telephony for an unlimited period as of 15th December 2000 pursuant to article 6.4, and for the Commission to annually re-evaluate this designation. The designation as AMM party in the market for public fixed telephony and leased lines also means that KPN, based on article 6.6, paragraph 1, TA, is obliged to set its' tariffs for interconnection in a transparent way, and to orientate them on costs. At the same time, KPN has to present a sufficient breakdown of these tariffs (article 6.6, paragraph 2, TA). Under article 6.9, paragraph 2, TA, the same provisions apply for the special access services provided by KPN.

2. The assessment of the cost orientation of the tariffs proposed by KPN for its interconnection and special access services has been carried out over the last period using a so-called EDC systematic[2]. In general terms, this systematic means that the costs presented by KPN based on its EDC model are assessed for reasonableness by the Commission using a reconciliation with the 'bottom up' model developed by OPTA and the market parties[3]. The EDC systematic has been applied twice: the EDC-1 process carried out in the period 1997/1998 led to the EDC-I assessment on 1 July 1998, and the EDC-II process carried out in 1988/1999 led to the EDC-IIA decision on 29th November 1999 and the EDC-IIB decision on 16th December 1999.

3. The first section of this chapter gives an overview of the developments that took place prior to this consultation document. The second and third sections deal respectively with the related subjects of the price squeeze and the ONP review currently taking place in relation to Europe. Finally, section 4 gives an overview of the contents of this consultation document.

1.1. Background

1.1.1. The EDC-IIB decision

4. The previously mentioned EDC-IIB decision of 16th December 1999 related to the setting of the definitive tariffs for the period 1st July 1998 to 1st July 1999 (for which the provisional tariffs were set based on the EDC-I process)[4]. In this decision, the Commission recognised that the setting of definitive tariffs using the EDC systematic would lead to considerably higher tariffs (compared to the

provisional tariffs for the same period). Such an increase would lead to considerable additional charges for the parties interconnecting with KPN. The Commission was therefore of the opinion that such charges, the resulting uncertainty which they would create for the competitors of KPN when deciding about future investment, together with the negative effect it would have on the young competitive market, meant that the EDC systematic could not be unconditionally applied. In taking this viewpoint, the Commission agrees with the opinion expressed by the Minister of Transport, Public Works and Water Management in his guidelines[5] concerning interconnection that, after assessment on cost orientation, the interconnection tariffs can also be reviewed in the light of how they will affect the development of competition. In reaching this conclusion, the Commission also took into account the extent to which the scarcity problem within the KPN network prevented strict application of the systematic[6]. The Commission therefore deemed it reasonable for the definitive tariffs for the period 1st July 1998 to 1st July 1999 to be set at the same level as the provisional tariffs for the same period.

1.1.2. The review of the EDC systematic

5. Taking into account the results of the EDC-II process, the Commission thought it necessary to review the EDC systematic used up until that point for the tariff regulation of KPN's interconnection tariffs in its EDC-IIB decision. Based on a number of factors described in the relevant decision, the Commission reached the conclusion that the EDC systematic will eventually be insufficient to meet the requirements which would be placed on such a system by the objectives of the telecommunications market.

6. This conclusion has led the Commission to take the viewpoint that the EDC systematic should no longer be applied after 1st July 2000, and a switch should be made to a systematic based on forward looking average incremental long run costs (LRAIC), which would be based on a 'bottom up' model (the BU-LRIC systematic)[7]. If necessary, this would involve the introduction of a transitional regime.

1.1.3. The bridging tariffs

7. On 28th April 2000, KPN presented another EDC report (the EDC-III report) to the Commission for assessment. In light of the position taken by the Commission on 16th December 1999, that the EDC systematic should not be used in the future, the Commission decided in its decision concerning bridging tariffs of 30th June 2000[8] not to approve the cost calculation system presented to it by KPN on that occasion.

8. In order to introduce a measure for the period 1st July 2000 to 1st July 2001 for which there was

no cost calculation system approved by the Commission - the BU-LRIC systematic has yet to be introduced - the Commission ruled in its decision on bridging tariffs that KPN should use the tariffs that were set by the EDC-IIA decision of 29th November 1999 for the period 1st July 1999 to 1st July 2000 as provisional tariffs from 1st July 2000 onwards. In this way, the EDC-IIA tariffs will in effect become temporary 'bridging tariffs' as of 1st July 2000.

1.1.4. The drawing up of a new regulatory concept

9. In its EDC-IIB decision, the Commission stated its intention to draw up new policy proposals for the creation of a new regulatory concept, about which the market would also be consulted, which is the reason for this consultation document.

10. As has already been stated in the decision on bridging tariffs, in order to draw up a new regulatory concept that can be presented for consultation, exploratory discussions were held between KPN and OPTA. Similar discussions were also held with a number of other market parties, namely Energis, GTS, UPC, Versatel and Worldcom. During these discussions the parties were asked to give their opinion about the regulatory concept proposed by the Commission. These discussions were also seen as a way of ending the objection procedures started by the above-mentioned market parties against the now abandoned EDC systematic so that both the market parties and OPTA could completely focus their attention on a systematic for the coming period.

11. On 18th October 2000, a public meeting was organised with the purpose of informing market parties about the proposed regulatory concept of the Commission.[9] They were also notified that they would be invited to give their reaction to the regulatory concept, in as much as it concerns the systematic that would be applied after 1st July 2001, in a consultation process that would be started later in 2000.

1.1.5. The transitional tariffs

12. The proposed new regulatory concept, as described in this consultation document, will only be actually introduced after 1st July 2001. The intermediary period is needed to carry out the current consultation process and to develop the actual BU-LRIC systematic that is to be used.

13. Because of this, there is no cost calculation system approved by the Commission in place for the period 1st July 2000 to 1st July 2001. In order to provide a definitive regulation for this period, the Commission decided on 4th December 2000 on its decision[10] concerning the transitional period, that transitional tariffs that clearly fall within the benchmark set by the European Commission for the

year 2000 will be maintained for national, regional, and local services[11]. The transitional tariffs approved by the Commission on this basis have the character of definitive tariffs, and will therefore not be adjusted later. In the same decision, the provisional tariffs laid down in the EDC-IIA decision were set as the definitive tariffs for the period 1st July 1999 to 1st July 2000.

1.2. Testing for the price squeeze

14. The Commission would like to take this opportunity to make some comments about the price squeeze, and the squeeze test that is being developed for it. The Commission has already stated in the regulatory concept that as far as the relationship between the end user tariffs maintained by KPN and its' tariffs for interconnection and special access, the Commission considers the implementation of a squeeze test as an administrative precondition for any tariff regulation carried out by OPTA.

15. The competitors of KPN all make use of the network of KPN to a greater or lesser extent when offering their services. They not only use it to transport traffic (terminating access), but also in some cases to originate traffic (originating access). KPN charges them the terminating and originating tariffs for this usage. The competitiveness of the other providers is largely dependent upon the margin between the interconnection tariffs and the end user tariffs of KPN. Because the end user tariffs have fallen quicker than the interconnection tariffs over the last few years, a situation might occur where the margin between these tariffs is so minimal that the other providers, who are largely dependent upon KPN for the purchase of network capacity, are not able to make a profit when providing their own telephone services. In such a price squeeze situation, it is conceivable that alternative providers would eventually be forced out of the market. The concept of price squeeze is defined by the Commission in its consultation document on price squeeze[12] as follows: 'A margin between the end user tariffs of KPN's telephone service and the interconnection tariffs associated with this service that is so low that efficient service providers are not able to make a profit when providing their own telephone service.'

16. In order to determine whether or not a price squeeze situation has arisen, OPTA has developed a test which has recently been presented for consultation in a separate procedure. The Commission based its development of the squeeze test on the Communication of the European Commission of 2nd August 1998 concerning the application of competition rules for agreements relating to access in the telecommunication sector.[13] In brief, the proposed test basically means that the end user tariffs of KPN must always be higher than the purchase price KPN would have to pay if it bought the network capacity from itself at the same interconnection tariffs it charges to its competitors, plus a reasonable additional amount so that providers can cover their other costs (the cost of running their organisation, billing, marketing, etc.) and achieve normal profit levels. This calculation is based on

the idea that KPN purchases network capacity from itself in a way that corresponds to the different sorts of traffic that are currently actually being routed in its network.

17. The squeeze test to be drawn up by the Commission, which will also take into account the comments made during the consultation process, has to make sure that a price squeeze situation can be prevented in the future. The Commission considers this to be an essential precondition for guaranteeing the development of durable competition in the long term. The squeeze test has to make sure there is a logical relationship between the wholesale and retail tariffs so that price squeeze effects are not allowed to develop. In this sense, the squeeze test acts, as it were, as the key to the regulation by the Commission of end user and interconnection tariffs.

18. The Commission is currently formalising the squeeze test, also taking into account the response given during the consultation process. In connection with this consultation process on future tariff regulation for interconnection and special access, it should be pointed out that the squeeze test will still be fully applied to the tariff regulation (and its results) when introduced by the Commission. Where relevant, this consultation document will refer to the content of the consultation about the squeeze test.

1.3. The European review of the ONP framework

19. This section will briefly look at the development in European regulations, before dealing with the proposed regulatory concept in the following chapters. More specifically, the relevant aspects of the review by the European Commission of the existing regulatory framework started in the autumn of 1999, or the 'ONP Review',[14] and in particular the significance of this for the assessment of cost orientation of the interconnection and special access services provided by KPN.

20. The Review began at the end of 1999 with a Communication from the Commission to the European Parliament, the Council, the Economic and Social Committees, and the Committee of the Regions.[15] As a result of the Communication, a large-scale consultation process was carried out,[16] after which the Commission published the contours for a number of new directives on 27th April 2000.[17] On 12th July 2000, the Commission then published proposals for five new directives, as well as a regulation concerning the unbundling of access to the local loop.[18] This regulation about unbundled access has since been completed and will come into effect as of 1st January 2001.[19]

21. The Commission has developed the proposed regulatory concept set out in this consultation document against the background of the European Review. Furthermore, since the new European directives will have to be implemented in national legislation within the near future, the Commission thinks it would be sensible if the proposed concept of tariff regulation of

interconnection and special access services for the coming years, anticipates, as far as possible, the developments identified during the review of European regulation. In the opinion of the Commission, this will prevent the development of a tariff regulation that does not allow for developments within the European Union.

1.3.1. Distinct and separate services

22. In the consultation document published by the European Commission,[20] the European Commission noted that during the formulation of general policy principles for access and interconnection, the regulation framework must not disrupt investment and innovation in services and infrastructure. The European Commission thinks it is particularly important that it is recognised that different commercial relationships apply to different situations.

23. In the case of 'call termination' (that is to say when a network provider transports a call to a provider connected to it that will terminate by the customer who has been called), the European Commission states that there is no commercial relationship between the network provider who asked for 'terminating access' and the customer who has been called. This is different to a situation where a network or service provider asks for access in order to enter into a commercial relationship with the customer of the provider who supplies the access. The European Commission wants the regulatory framework, and in particular any rules relating to tariffs, to take into account the difference between these two situations.[21] In a wider sense, the European Commission recognises that the terminating access service, the originating access service, and the transit service will probably develop into separate markets, for which different rules might apply.[22]

1.3.2. Tariff regulation

24. As far as terminating access is concerned (or call termination), the European Commission has repeated the guideline it gave in an earlier recommendation[23] for the use of the method of long run average incremental costs (LRAIC).[24] For other types of access, the European Commission recognises that other price calculation methods might be more suitable. This might be the case if the relevant markets were more competitive, or when the market party who asks for access does so in order to generate new sources of income from customers of the supplier of the access.[25] Furthermore, the European Commission states that especially market parties who have a significant market influence have to prevent a price squeeze occurring between their end user tariffs on the one hand, and on the other, the interconnection tariffs they charge to their competitors.[26]

1.4. The contents of the consultation document

25. This consultation document is divided up as follows. Chapter 2 deals with the differentiation proposed by the Commission between the cost regulation for terminating access on the one hand and originating access on the other. Chapter 3 deals with a number of aspects which, in the Commission's opinion should be included within the tariff regulation with equal application for both terminating access and originating access.

26. Chapters 4 and 5 deal in greater depth with the proposed differentiated tariff regulation for terminating and originating access. Chapter 6 gives a summary of all the questions explicitly asked in the consultation document, and a description of the further consultation procedure.

27. It should be pointed out that the specific points about which the Commission wishes to consult interested parties are highlighted inside a box. These specific points are summarised in chapter 6. Interested parties can of course inform the Commission about their opinions and positions on other issues than those specifically referred to.

28. Finally, the Commission would like to point out that the completion of the policy proposals will of course be influenced by the input of the market parties during this procedure, but that the development within European regulations will also play a role. To that extent, regulators in the so-called 'Independent Regulators Group' (IRG) have held discussions in order to achieve a certain amount of European harmonisation of the policy in relation to concrete formulation of the LRIC systematic for cost calculation. The discussions have resulted in so-called 'Principles of implementation and best practice regarding FL-LRIC cost modelling', which can be found at OPTA's web site.[27]

Chapter 2. Differentiated regulation models

2.1. Introduction

29. Following the review of the EDC systematic, and taking into account the developments in the market and European regulations, the Commission has reached the conclusion that a differentiated approach should be adopted for the tariff regulation of terminating access and originating access. In broad terms, this differentiated approach means that the Commission proposes the use of the BU-LRIC systematic for the tariff regulation of terminating access, and the use of the EDC systematic for the tariff regulation of originating services. The Commission is of the opinion that this differentiated approach takes into account the special nature of terminating access, while at the same time creating the possibility for tariff regulation to be influenced by the effect of actual market conditions. The Commission is also of the opinion that this differentiation would reflect the results of the ONP Review, which were discussed in section 1.3.

30. In the past, the tariffs for both terminating and originating services were set based on the EDC systematic in use at the time. The tariff difference between both types of services was exclusively due the fact that KPN incurred direct costs for originating services that were only relevant to those specific services. No consideration was given to the specific nature of the terminating service compared to the originating services, nor the possible effects of actual developments in the market, on the way such tariff regulation could best be carried out.

31. The differentiation proposed by the Commission between the tariff regulation of terminating access and originating access is set out in greater detail in this chapter. To begin with, the nature of terminating access is discussed, as is the BU-LRIC systematic proposed by the Commission for this specific service (section 2.2). Thereafter, the nature of originating access and the difference between it and terminating access is dealt with, and the reasons are given why the Commission is of the opinion that the EDC systematic should be used for originating access (section 2.3). Finally, section 2.4 deals specifically with the tariff regulation for so-called interconnecting leased lines.

2.2. Terminating access

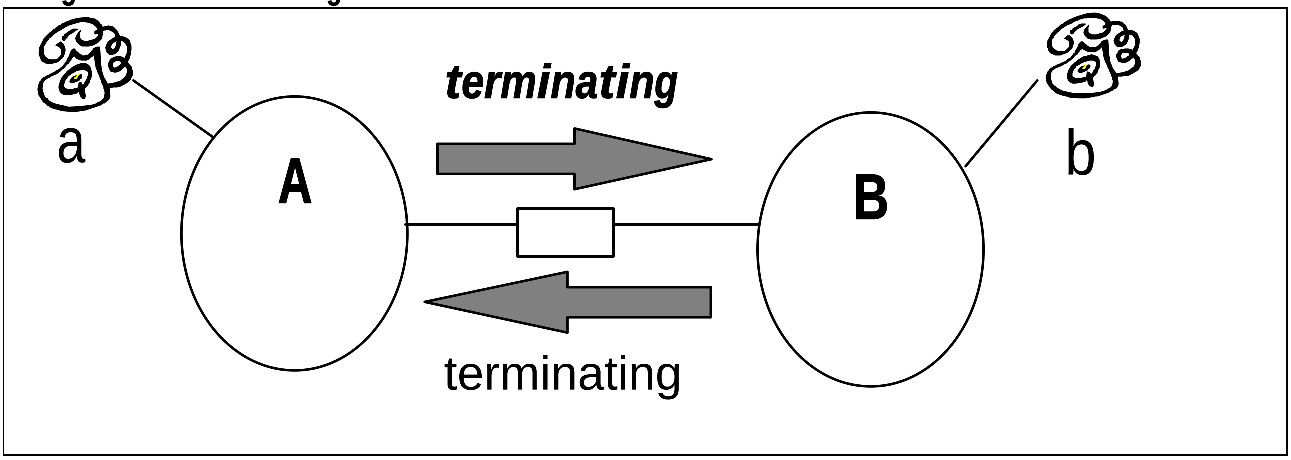
2.2.1. The nature of terminating access

32. Article 6.1, paragraph 1, TA, determines that providers of public telecommunication networks and public telecommunication services in the Netherlands, who in so doing control the access to the

network connection points of end users, are responsible for making sure the interconnection between the telecommunications networks involved allows the end users connected to them to communicate with each other.

33. In the explanatory memorandum to the TA, it states that the interconnection has the function of creating interoperability between public telecommunication networks. *This means that the customers of different networks are able to communicate with each other. Because interoperability between the networks is guaranteed, this creates the possibility for competition between providers of networks and the providers of services. This is because if a new provider cannot offer a connection with the subscribers of KPN or those of other providers, it would not be able to acquire any customers. '*[28] The Interconnection Guidelines state that in an interconnection model, where exploiters of networks transport each other's traffic to those connected to the network, there is what is known by interconnection jargon as 'terminating access'. A related term is 'call termination'. The diagram below provides a simple illustration of this model.

Diagram 2.1 Terminating access



End user a (connected to network A) calls end user b (connected to network B). In order to connect this call, network provider A needs network provider B. Network provider B supplies network provider A the terminating access to connect the call. Network provider A pays network provider B the terminating access tariff for this service as set by network provider B. The same applies if end user b calls end user a.

34. From diagram 2.1 it can also be clearly seen what the European Commission means when it says that in the case of call termination, no commercial relationship exists between the network provider who asks for terminating access and the customer called: In diagram 2.1 network provider A, who asks network provider B for terminating access, has no commercial relationship with end user b. This is because end user b is a customer of network provider B. Network provider A therefore only offers its telephone service to its own customer, end user a, and not to end user b. Even if end user b not

only had to be a customer of network provider B, but for example of a mobile network provider C, this would not affect the special nature of terminating access: End user a called the fixed telephone number allocated to end user b by network provider B.

35. If one connection with a number is seen as a market, then it could be said that network provider B has a monopoly position in terms of the terminating access to end user b. In relation to this, the Commission pointed out in connection with the dispute between KPN and Energis concerning reciprocity that one number cannot be considered as a relevant market, however, what is relevant is the broader concept of the 'market for interconnection'[29] derived from the European Interconnection Directive. The Commission has therefore stated that it expects the tariff differentiation[30] to be introduced by KPN to form such a correction mechanism that it will be an effective way of preventing unreasonable tariffs for terminating access being set. In the context of this consultation process it should be pointed out that this opinion of the Commission particularly concerns the terminating access tariffs of parties competing with KPN. It is precisely the special position of KPN, as the market party with significant influence, that makes it unlikely that the correction mechanism referred to would operate effectively for KPN itself.

36. The specific nature of the terminating access service is emphasised by the existence of so called call termination externality. This externality is created because in principle the calling party is the one paying the rate for terminating access, while the party being called is the one who sets the level of the tariff (and who also decides to use a certain network provider).

1. Interested parties are requested to indicate whether or not they agree with the description of the special nature of the terminating access service.

2.2.2. Setting tariffs for terminating access: FL-LRIC

37. From the previous section it is clear that the network providers A and B supply each other with a terminating access service. This service consists in fact of the use by one of them of the network of the other, so that a call made by an end user can be connected to another end user. For such a service, it is customary for the network provider using this service to pay a price to the party offering the service: The terminating access tariff.

38. Under article 6.6, paragraph 1, TA, KPN is obliged to offer the terminating access service supplied to its' competitors at cost orientated tariffs. Cost orientated tariffs means, the underlying costs plus a reasonable profit margin. This obligation to maintain cost orientation is in fact a recognition of the way the strong position of a market party with AMM makes it essential that the

tariffs set by this party for terminating access are regulated; without this regulation, the significant influence of the relevant market party would mean there was a risk of a tariff level being set that would prevent an efficient development of the market.

39. For the setting of cost orientated tariffs for terminating access, the European Commission has made the recommendation, in line with the Interconnection Directive, that this should be based on the so called forward looking long run average incremental costs, or FL-LRAIC [31]. According to the European Commission, this cost calculation systematic is the best way of setting tariffs at a level that would have come about in a competitive market environment. The recommendation of the European Commission therefore answers the question of how the principle of cost orientation for the distinct and separate terminating access service should be worked out in practice.

40. The Commission agrees with the European Commission that the application of the FL-LRIC cost calculation systematic would provide the best guarantee for the setting of a tariff level that would have been in force if there was effective competition in the 'market for interconnection'. As the best way of emulating such a competitive tariff level, the figures produced by the systematic give the right price signal to potential market parties, and to existing competitors, who are making decisions about investment.

41. In this way, the Commission recognises that precisely the special nature of the terminating access service described in section 2.2.1 makes the application of the FL-LRIC systematic desirable in order to work out the principle of cost orientation in practice. Otherwise this special nature, together with the position of KPN as AMM, will prevent the long term spontaneous achievement of a tariff level similar to that produced by the FL-LRIC. Only when the market conditions are such that the corrective mechanism of any tariff differentiation maintained by its competitors would also be effective for KPN would the spontaneous development of a similar tariff level be likely. Such market conditions are, however, not to be expected as long as KPN still has to be designated as AMM.

42. For a more detailed explanation of the FL-LRIC cost calculation systematic, please see chapter 5. It should be noted that the recommended use of the FL-LRIC by the European Commission was one of the factors which led the Commission to reconsider the use of the EDC systematic in the EDC-IIB decision of 16thecember 1999. Another factor was the fact that during the EDC-II process, an overwhelming majority of those involved in the process consultation group were in favour of the introduction of the FL-LRIC systematic.

2.	**Interested parties are requested to give their opinion about the intention of the Commission to introduce the FL-LRIC cost calculation systematic in order to implement the cost orientation concept for the terminating access service in practice.**

2.2.3. Setting tariffs for terminating access: Bottom up

43. The ECD model developed by KPN, which was used in the past to determine the tariffs for terminating access, was a so called 'top down' model. In such a model, the cost base is determined according to the actual existing situation, in this case the network of KPN and the cost of interconnection services for the network. This model uses the cost as given in the accounts of KPN (the 'embedded' E in EDC), and as such are verified by an accountant.[32]

44. Whereas a 'top down' model is based on the accounts of the regulated company for whom the tariffs are being set, a 'bottom up' (BU) model works by creating a technical-economic model. And whereas a top down model is based on the actual situation, and thus on the existing cost base, a BU model uses the cost base of a hypothetical party entering the Dutch telecommunications market.

45. In this BU model, the cost is calculated of the network elements required for the delivery of certain services. For this purpose, a model representation of the desired network architecture has to be developed. This model then has to be dimensioned, whereby the capacity level of all the elements in the network is determined that would be needed to transport the expected amount of traffic. Next, the theoretical cost of the network elements are calculated based on purchase prices, amortization periods, and exploitation data. The cost price of each separate service is then worked out with the help of routing factors.

46. As well as the introduction of the FL-LRIC cost calculation system, the Commission also proposes to base the tariff regulation of terminating access on a BU model. Given the special nature of terminating access, the central objective is to produce a tariff level that approximates as closely as possible to a tariff level that would have been achieved in a competitive market. In the opinion of the Commission, this objective is better served in a situation where the tariffs for terminating access are based on a BU model. This is because the starting point of a BU model is that the tariffs for terminating access are regulated based on the cost base of an efficient provider, in this instance the only sort of provider who would be able to survive in an effective, competitive environment.

47. The systematic used until recently was based on the 'top down' EDC model, and therefore on KPN's actual cost base as given in its financial accounts. In the opinion of the Commission, this approach is less effective in achieving the objective of tariffs for terminating access that reflect as

far as possible the tariff level that would have been achieved in a competitive market. Although the EDC model and the principles used by KPN do contain a number of elements that go a long way to help the achievement of an efficient cost level, this cost calculation model is still primarily based on the cost base and investment decisions of KPN. In the EDC-IIB decision, this situation was characterised by the Commission as follows: 'Although the development of a tariff level for optimal competition presupposes a cost calculation system that is based on the cost and income levels representative of an efficient company operating in a competitive market, that cannot be sufficiently verified using the EDC systematic.'

48. As well as the consideration that a BU model provides a better starting point for a tariff level for terminating access representative of a competitive market, it should still be pointed out that - in the event that a BU model should be used as a starting point - the burden of proof to show the relevance of certain costs lies where it should: With KPN. This is because in a hypothetical situation where KPN says it has higher costs than have been calculated into the BU model, the onus would in principle lie with KPN to show the reasons and justification for cost levels that were higher than those to be expected for an efficient company.

49. This raises the question of whether or not, and if so how, the costs calculated in the BU model (and the results produced by it) should be related to the actual costs experienced by KPN (and the results based on these). First of all, the Commission would imagine that this relationship is discussed throughout the entire development process of the BU model; this means that it is in principle up to KPN to contribute to the development of the model from the viewpoint of the reality experienced by it. Furthermore, a more concrete phase in the process, where the BU model is reconciled with KPN's EDC model, might produce useful indicators. Such a reconciliation would be similar to the reconciliations carried out in the past, albeit that the BU model would then be taken as the starting point ('inverted reconciliation').

50. Finally, it should be pointed out here the use of a BU model would create a considerably higher degree of transparency for third parties in terms of both the relevant costs and the underlying cost calculation mechanism. Taking into account the special nature of terminating access and the position of KPN as the AMM party, the Commission considers such transparency highly desirable. As a 'top down' model, the EDC model is unable to provide an equivalent level of transparency.

3. Interested parties are requested to give their views on the intention of the Commission to use a bottom up model in order to implement the cost orientation concept for the terminating access service in practice.

4.	**Interested parties are requested to put forward any suggestions they have regarding the question of how the leading role of the bottom up model can be implemented in practice.**

2.3. Originating access

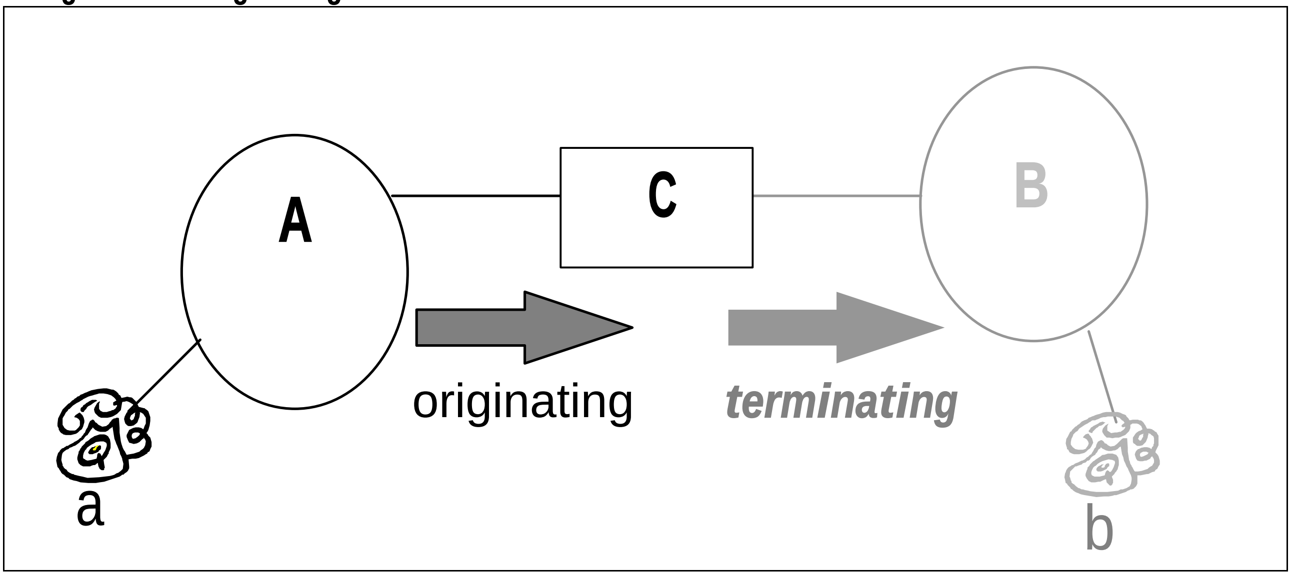
2.3.1. The nature of originating access

51. Under article 6.9, TA, KPN is obliged to comply with all reasonable requests for special access. For such special access services, KPN has to charge cost orientated tariffs. Unlike the situation with terminating access, there is not a predetermined number of services for this type of access. Whether or not a request should in fact be considered as a request for special access as referred to in the TA has to be determined based on the definition of special access in legislation: 'Access to a telecommunication network at other points than the network access points that are offered to most users' (article 1.1, subsection j, TA).[33]

Whether or not KPN is obliged to comply with the request for special access therefore depends on whether or not the request concerned is considered to be reasonable.

52. Synonymous with the concept of special access is the concept of 'originating access'. Diagram 2.2 illustrates the concept of originating access for the special carrier selection access service.

Diagram 2.2: Originating access



In this situation, C is a carrier select operator. End user a is connected to network A, but is also a customer of C. In a situation where end user a calls end user b after dialling the prefix of C (16xy) then in fact C collects the call via network A (and uses network provider B to terminate at end user b; see terminating access above). Network provider A supplies C with the originating access service so it can originate the call. C pays network provider A the tariff it has set for the originating access service.

53. Diagram 2.2 shows the nature of originating access: Operator C purchases the originating access from network provider A so it can offer end user a the public telecommunication service. End user a is not connected to the network of operator C, but to the network of provider A. The originating access service allows operator C to collect the calls of its customer, end user a, via the network of A (to 'originate' there) so they can then be transported to their destination (in diagram 2.2 via the network of B).

54. It is clear that in, for example, the case of the originating carrier selection service there is a commercial relationship between operator C and end user a. End user a has apparently chosen to use operator C for some of the traffic generated by him. This is because the services provided by operator C to end user a offer him a certain added value, for example because operator C can offer him competitive tariffs, or because the degree of itemisation in the invoices of operator C are more to his liking. In other words, by making a request for originating access, operator C is asking network provider A for a type of access to its network so that operator C is able to enter into a commercial relationship with an end user connected to the network of A. This is the opposite of the situation with terminating access.

55. However, the commercial relationship can also be less explicit. One example is the 'KPN Telecom PSTN 800/90x Connect Service' provided by KPN. This service allows KPN subscribers to reach the 800/90x information providers of a party connected to the 800/90x platform that is competing with KPN.[34] In such a case, the party calling generally does not know that it is making use of an information service connected to the platform of a competitor of KPN.

56. A principle that generally applies to originating access is that the tariffs charged to the end user are set by the party who makes the wholesale purchases of the originating access service.[35] Essentially, this party purchases the originating part of the relevant service 'wholesale', after which it is then in principle free to decide for itself which tariffs to charge the end user for this part of the service (along with the other elements of the relevant service).

5.	**Interested parties are requested to state whether or not they agree with this description of originating access.**

2.3.2. Setting tariffs for originating access: EDC

57. Under article 6.9, TA, KPN is obliged to offer the supply of special access services to its' competitors at cost orientated tariffs. Just as in the case with terminating access, this obligation recognises that the special position of the market party with AMM makes it essential for the tariffs maintained by that party to be regulated; without this regulation, the significant influence of the relevant market party would mean there would be a risk of a tariff level being set that would prevent an efficient development of the market.

58. Although the above mentioned principle consequently applies to both terminating access and originating access, the Commission is of the opinion that the concrete expression of this principle does not necessarily have to be the same for both forms of access. Thus in the sense that a differentiation will have to be made in the way the obligation is to set cost orientated tariffs, is actually fulfilled in practice all according to the nature of the costs in the different services being regulated. The Commission is therefore of the opinion that the risk that the tariff level will prevent efficient market development is of a different character for originating access than for terminating access.

59. As already stated in section 2.2, the Commission is of the opinion that for terminating access, the type of access involved makes it essential that the tariffs set for this service approximate as closely as possible to the tariff level that would have been set in a competitive environment. This should be done in any case since, as long as KPN still has a significant influence, it is very unlikely that the market will develop in such a way that the AMM party will feel forced to set the tariffs for terminating access at a certain level due to market influences.

60. This is not so with originating access. Above all, it should be pointed out that there is also an obligation for the AMM to set cost orientated tariffs for special access in order to achieve the desired competitive market. Without such an obligation, the AMM party would be free to set its' tariffs for originating access (within the limits of the requirements of non-discrimination) in order to translate its' commercial considerations into a tariff level that might prevent the most efficient development of the market.

61. The other type of risk connected with the setting of tariffs for originating access flows from the recognition that originating access in principle supplies a functionality that the competitors of KPN can also organise in a different way. The functionality supplied by KPN with its originating access services is therefore essentially subject to the competitive influence of the actual or potential alternatives available. Firstly, a competitor might decide to build its own infrastructure which would provide the same functionality. Secondly, an alternative functionality could be achieved using the networks of other market parties.

62. The Commission is of the opinion that, the above considerations mean that the introduction of a more stringent form of cost regulation than the EDC systematic, already being used for the setting of cost orientated tariffs for originating access, is neither necessary nor desirable. The possible alternatives, together with the safeguards within the established EDC systematic, provide a certain degree of certainty that KPN will not be able to set tariffs that prevent efficient market development. At the same time, the requirement of cost orientation based on the EDC systematic guarantees that KPN will not charge the market parties more than the actual costs plus a reasonable profit margin.

63. Moreover, the squeeze test being developed will create insight into the relationship between KPN's end user tariffs on the one hand and the tariffs to be maintained by KPN for terminating and originating access on the other, so that any potential threat of a price squeeze for its competitors can be identified at an early stage.[36] In this way the Commission should be able to make sure that the tariffs for originating access resulting from the application of the EDC systematic (along with the tariffs resulting from the application of the BU-LRIC systematic for terminating access) do not lead to a situation where alternative providers are prevented from supplying an economically viable service. KPN should therefore always have to give an adequate account of the relationship between its' retail and wholesale tariffs on the one hand, and between its' terminating and originating wholesale tariffs on the other.

64. The proposal to continue using the EDC systematic for originating access is also based on the following consideration: The Commission is aware that several parties are currently rolling out their own network and/or making their networks suitable for telecommunication service provision (as are certain broadcast networks). The application of a more stringent cost orientation for special access to the network of KPN using the BU-LRIC systematic could result in the new networks of the other providers becoming less attractive, especially for service providers who are seeking access. The Commission is of the opinion that, where possible, the development of competition based on infrastructure is the best way to guarantee long term effective competition, and that the application of cost orientation using the EDC systematic therefore provides the right incentives with respect to the investment decisions ('make or buy decisions') that service and network providers would have to make in a competitive market.

65. Nonetheless, the Commission does recognise that the possible alternatives, especially for service providers, are still limited at this point in time, particularly in terms of gaining access to end users via the local loop. The Commission expects that requests to KPN for special access from service providers who are not yet able to offer their service to the majority of end users in the Netherlands in any other economically viable way should still be considered reasonable.

66. Maintenance of the EDC systematic means that the tariffs for the originating access services

offered by KPN will continue to be based on the EDC model developed by KPN in line with the principles and starting points formulated by OPTA, and on the assessment of the Commission. The starting point of this 'top down' EDC model is the actual costs and traffic volumes experienced by KPN. This will mean a closer alignment with the operational management and investment decisions of KPN than with a bottom up systematic. To the extent that any inefficiencies produced are reflected in the tariffs, the Commission expects these to be corrected under the influence of the competitive character of the functionality supplied. Moreover, it can generally be expected that the increased competition will force KPN to adopt more efficient operational management. At the same time, the tariff regulation in force for terminating access will provide a stimulus for KPN to bring the 'bottom up' costs in line with the actual costs. The Commission therefore intends to end the efficiency reductions as implemented in the past within the EDC systematic.

67. Maintenance of the EDC systematic for originating access will thus create a process whereby the tariffs based on KPN's underlying costs, the alternatives available on the market for the functionality supplied with originating access, and the investment decisions to be taken by the competitors of KPN in light of these factors will all encourage the development of a competitive market for originating access. The tariff level to be set for terminating access using the BU model will provide insight into to the tariff level that would be achieved in a fully competitive market; seen from the perspective of efficient or inefficient market participation by new parties, this will be an important indicator for potential competitors.

68. With the maintenance of the EDC systematic for originating access on the one hand, and the introduction of the BU-LRIC systematic for terminating access on the other, the Commission will introduce a differentiation within the tariff regulation of the wholesale services provided by KPN. The Commission considers this differentiation justified by the distinction between the natures of terminating access and originating access. At the same time, this differentiation is in line with the idea that competition should primarily be created by the market parties themselves, and that the relative severity of the tariff regulation to be applied for a particular market should remain in proportion to the degree to which this competitive capacity can be expected from the market parties. Moreover, the European Commission has also taken the position that the use of various assessment systematics is both possible and desirable.[37]

6.	**The interested parties are requested to give their views about the firm intention of the Commission to continue using the EDC systematic in order to set cost orientated tariffs for originating access (without efficiency reductions).**

2.3.3. Inextricably linked facilities and provisions

69. Certain facilities or provisions can form part of a reasonable request for special access, and in such a manner that they are in fact inextricably linked to the request. In this context a request for special access without the delivery of these facilities or provisions by KPN would in fact be meaningless. Such facilities and provisions, as well as the special access service, should be offered by KPN at cost orientated tariffs.

70. A good example of such a provision is the billing functionality (the 'KPN Telecom PSTN 90x Customer Billing Service') for 90x traffic which KPN's competitors originate at end-users using KPN Telecom's PSTN 800/90x Connect Service. In the EDC-IIA decision, the Commission has judged that this billing functionality provided by KPN together with the special access service 800/90x Connect forms an inseparable unit. In particular, this is because the Billing Service is a bottleneck in the provision of an economically feasible 90x service for KPN's competitors. After all it is unlikely that one of KPN's competitors could generate sufficient 90x traffic per billing address for the billing to be profitable.

71. With regard to the setting of tariffs for such facilities and provisions the Commission has adopted the viewpoint that in principle it should be assumed that KPN will submit proposed tariffs, based on EDC principles and starting points, which the Commission will then assess after possible consultations with market operators.

72. With respect to the one off costs charged for the facilities and provisions in question, it is not always the case that these are charged on the basis of the EDC principles. After all, KPN has not actually made any investment. For one off costs KPN can in principle only charge for directly related costs, in which case the general starting point that costs incurred by KPN may only be recouped once equally applies.[38]

7.	**Interested parties are requested to submit their viewpoints with respect to the Commission's intention for services and provisions inextricably linked to special access services using EDC principles as the basis for interpreting the concept of cost orientation.**

2.3.4. MDF access

73. MDF access allows alternative operators to lease the local loop from KPN. This means alternative

operators can directly connect customers to their own network. On 12th March 1999 the Commission published guidelines for MDF access, including provision designed to help settle disputes about special access on the basis of article 6.9, TA.[39] In these guidelines the Commission stated that it is reasonable to consider basing the cost orientation of the 'lease tariff' for unbundled access to the local loop as well as the cost orientation for the one off fee on the principles of the EDC model as approved by the Commission. The initial monthly lease tariff, P_0, would therefore be determined on the basis of historical costs. Over the next five years the pricing principle would gradually have to evolve from historical to actual values. On 25th May 2000, the Commission issued a ruling on the provisional monthly tariff, P_0, based on the formulated basic principles. In this ruling, the Commission recognised that the review of the EDC system expressed in the EDC-IIB decision of 16th December 1999 could also have consequences for the tariffs set for MDF access.

74. In this section, consideration is given to the question as to how the review of the EDC system could affect the regulation of tariffs for MDF access. It should be noted that any possible change in the Commission's viewpoint is not only connected with the review of the EDC system and as a result of this the policy proposals as formulated by the Commission (so as formulated in the consultation document in question). Developments in European regulations with respect to the unbundling of the local loop, as recently established in the regulation of 5th December 2000, also play a role.

The basis for the sliding scale of tariffs: EDC or BU-LRIC?

75. For the guidelines concerning MDF access, the starting point for these services was that the applicable regulation of tariffs would not be allowed to influence the long term investment decisions of the market operators, while at the same time the short term establishment of a client base had to be stimulated. The Commission still fully supports this starting point.

76. As previously stated, this starting point has been put into practice via the gradual introduction of a sliding scale of tariffs over a period of five years, based on the switchover in the EDC system from an historical pricing principle to an actual pricing principle. This being the case, after a period of five years the cost of MDF access will be the same as that of an EDC based tariff for the actual cost price.[40]

77. Against the background of the policy proposals detailed in this consultation document for the regulation of tariffs for interconnection and special access services provided by KPN, the Commission would like interested parties to consider a number of aspects listed below. It should be noted that for the time being, the Commission itself cannot find sufficient reason to deviate from the methodology formulated in the guidelines for the calculation of the sliding scale of tariffs (as

described in the previous paragraph). This is because the Commission recognises the desirability of investing in alternative infrastructures.

78. One consideration is that the sliding scale of tariffs should no longer be related to the EDC based tariff for the actual cost price, but should instead be based on the tariff set by the BU-LRIC systematic for MDF access (which is also based on actual values). At the end of the five year period this would mean that the tariff for MDF access would be the same as the tariff set by the BU-LRIC system for the year concerned (and not based on the EDC based tariff at the actual cost price).

79. The Commission expects the proposed switch to the BU-LRIC system to produce a somewhat lower increase in the tariffs for MDF access. This is because similar to EDC the BU-LRIC system based on current cost accounting, albeit the BU-LRIC system, gives more room for explicit decision making relating to the desirable and attainable efficiency within the local loop. This last aspect in particular can be expected to have a somewhat limiting effect on the tariffs set.[41]

8.	**Interested parties are requested to give their opinion about the possibility of tariffs for MDF access being allowed to evolve to a tariff level based on the BU-LRIC systematic over a five year period.**

The sunset clause

80. In the guidelines of 12th March 1999, the Commission indicated that KPN, at the end of the five year period, should in principle be free to determine tariff levels on a commercial basis, subject to the relevant conditions concerning non discrimination. The Commission remains of the opinion that a sunset clause for regulating tariffs for MDF access is desirable, however, the Commission would like to suggest that it might be better to base such a sunset clause on actual market developments rather than on a predetermined fixed period.

81. This is primarily because the relationship that is to be established directly links the setting of tariffs to the relevant market conditions and the development of alternative infrastructures. The actual market circumstances should after all be decisive in providing the answer to the question about when the function and aim of regulating tariffs can be left to the influence of market conditions. Secondly, the difficult start of KPN's MDF access service to other market operators should be mentioned. That the requested MDF access connections were not (or not on time) delivered in every case is, in the Commission's opinion, in conflict with the principle of a predetermined fixed five year period. Thirdly, it can be noted that the periodical carrying out of market analyses, which

subsequently form the basis of any possible review of the regulatory measures introduced, is in accordance with the approach adopted by the European Commission in its review of the directives.

9.	**Interested parties are requested to give their opinions about the Commission's proposal to review the tariff regulation for MDF access on the basis of actual market conditions once the five year period has come to an end.**

One-off costs

82. With respect to the tariffs for facilities and provisions inextricably linked to the MDF access service (especially in the area of collocation) please refer to the Commissions recently formulated guidelines about collocation and one off costs for access to the local loop.[42]

2.3.5. The differentiation between originating speech and Internet traffic

83. In the regulatory concept presented to the market by OPTA on 18th October 2000, the Commission indicated that, within the application of the EDC systematic, a certain differentiation between originating speech traffic and originating Internet dial-up traffic was desirable. This is because the unbundling of internet traffic is also an important objective for KPN as this would reduce the shortage of capacity on KPN's telephone network.

84. The Commission presumes that the tariff level for the 06760 Internet Connect service will go a long way towards meeting this objective. In the regulatory concept it has already been noted that KPN's proposed tariffs for this service based on EDC will be assessed by the Commission in conjunction with the question regarding the extent to which the tariff set for this service, with respect to the existing terminating model and KPN's proposed collecting model, provide a realistic alternative. In so doing the Commission will play specific attention to the manner in which KPN demonstrates how separating internet traffic saves costs as shown in the tariff levels for the 06760 internet Connect service.

10. Interested parties are requested to submit their viewpoints with respect to the Commission's desire for a differentiation between originating speech and internet traffic.

11. Interested parties are requested to submit their ideas with respect to the question as to how differentiation between originating speech and internet traffic can be realised and which distinctive characteristics should be used for this purpose.

2.4. Interconnecting leased lines

85. With respect to the interconnection of national and international leased lines, the Commission noted the following in its decision[43] concerning the ruling by OPTA of the reference interconnection offer of KPN Telecom BV:

'Article 6.1, paragraph 5, of the TA, the EU Interconnect Directive 97/33 as well as the 1997 interconnection guidelines from the Minister of Transport, Public Works and Water Management discusses interconnection in relation to leased lines. The Indicative Reference Interconnection Offer of the European Commission differentiates between national and international leased lines. Both should be included in an RIA.

'KPN has not included interconnection on leased lines in its RIA as in its opinion this was not requested. KPN based this conclusion on the fact that it compiled a service description in 1998 to which operators have not (yet) responded.

'The Commission is of the opinion that KPN in accordance with the TA (article 6.7, paragraph 1) is required to include an offer for interconnection of leased lines in its RIA. In accordance with article 6.1, paragraphs 2 to 5, TA, the Commission is of the opinion that KPN's RIA should also contain an offer for international leased lines.

'The latter should at least contain an offer for the interconnection of leased lines for operators who offer public telecommunication networks and public telecommunication services outside of the Netherlands. This will include operators who deliver a leased line to third parties between end points outside of the Netherlands and within the Netherlands, and for the benefit of the Dutch part of the line interconnection requested on leased lines from KPN.'

86. In the operative part of the decision concerned, the Commission has requested KPN to include the offer referred to for interconnection of leased lines, in its RIA.

87. As far as tariffs for internet connecting leased lines are concerned, please refer to the European

Commission's recommendations on leased line interconnection pricing in the liberalised telecommunications market.[44] In the explanatory notes to this recommendation, the European Commission pointed out that the competitive offer of leased lines is of increasing importance for the European economy, and in particular for the rapid development of e-commerce. In so doing the European Commission indicates that the high cost of leased lines in Europe has for some time now been an important concern for the end users of such services. In its' analysis of the problem, the European Commission subsequently points out that the large investment in alternative infrastructure for larger distances is bringing competition for leased lines a step closer, but that competitors of the AM,M presently in the market, are, for the time being, still dependent on the AMM party's infrastructure for the 'last mile' to the end user's premises. In the recommendation, the Commission defines a number of recommended price caps for short interconnecting leased lines,[45] whereby the Commission defines these leased line interconnection services as 'provided by one operator to another operator to give access to a customer's premises, and that constitute one segment of an end-to-end leased line between customer's premises. The price caps are based on the three Member States with the lowest tariffs and act as a guideline for national regulatory bodies in their assessment of the cost orientated tariffs proposed by an AMM.

88. The ruling in the RIA decision as well as the recommendation of the European Commission has led the Commission, within the scope of the consultation in question, to request the interested parties to consider the desirability of regulating tariffs for interconnecting leased line services that are to be provided by KPN. With respect to this matter, the Commission has for the time being adopted a provisional viewpoint that it must be based on the EDC systematic. This is against the background of the underlying arguments expressed in the proposed differentiation in regulatory models for terminating and originating access as expressed in this consultation document. In contrast to terminating access, services aimed at offering leased lines involve a 'make or buy decision': An operator of end-to-end leased lines competing with KPN can in principle decide whether to use KPN's network for the last mile (or if present that of another operator) or to install their own network instead. Thereby the end user of the end-to-end leased line has an explicit customer relationship with the competing leased line operator. This explicit customer relation makes the 'make or buy decision' even more relevant. In the Commission's opinion, the aforementioned considerations must mean that the emphasis in the regulation of tariffs for the service does not have to be directed towards reaching a tariff level that would occur in a competitive environment; application of the EDC systematic offers in principle sufficient guarantees for the market to be able, and indeed encouraged, to put a tariff level into place, which is favourable for efficient market development.

89. Moreover, the Commission is of the opinion that the price caps formulated by the Commission in its recommendations will provide the Commission with an important evaluation framework for the final assessment of interconnected leased lines provided by KPN. This is because in any situation the tariffs applicable for the services must not exceed the aforementioned price caps.

12.	**Interested parties are requested to submit the viewpoints with respect to the Commission's provisional view that the tariff regulation for interconnected leased lines should be linked to the EDC systematic.**

Chapter 3. General topics

90. This chapter deals with four topics, for each of which the Commission considers that the detailed regulations for setting tariffs for both terminating access and originating access should be identical in broad terms. Section 3.5 then considers the concept of capacity based charging.

3.1. The definitive character of the tariffs and the period to which they apply

3.1.1. Validity period

91. On 1st July 2001, the Commission intends to make a decision regarding the tariffs to be applied by KPN for the period of one year, beginning from that date, for its interconnection and special access services. The validity period of the fixed tariffs will therefore run from 1st July 2001 to 1st July 2002. On 1st July 2002, a decision will be taken about the tariffs applicable for the period 1st July 2002 to 1st July 2003, and so on. The Commission considers that it is still necessary to fix the tariffs annually in view of the continuing fluid developments in the wholesale market, which make forecasts difficult.

3.1.2. The definitive character of the tariffs

92. The Commission intends to regard the tariffs fixed for a particular period as definitive tariffs. This means that a set of tariffs will be determined only once for a particular period, for example for the period between 1st July 2001 and 1st July 2002. This proposal means an end to the EDC systematic that has been applied in the past. This involved an annual cycle of provisional and definitive tariffs, with a settlement being required if the definitive tariffs proved to differ from the provisional tariffs.[46] Based on past experience, the Commission has concluded that the apparent advantage of the methodological purity of the annual cycle of provisional and definitive tariffs is outweighed by the disadvantages associated with this approach.

93. In so doing, the Commission has identified the possibility for a difference between the provisional and definitive tariffs set for a particular period to create uncertainty for (potential) market parties. This uncertainty can have a negative effect on the investment climate in the market. Uncertainty about the final tariffs means that market parties are less able to budget the costs associated with their interconnection with KPN's network. This makes it harder to estimate the risks

of investment. Moreover, the risk that an additional charge may have to be paid to KPN at the end of a period represents a disadvantageous risk for the operations of parties competing with KPN.

94. Another disadvantage of the annual cycle of provisional and definitive tariffs is that this method has limitations from the point of view of transparency and simplicity. The method is not easy to explain. Part of the reason is that this method is not applied anywhere else as far as the Commission is aware. In the opinion of the Commission, the clarity of transparent and unambiguous tariffs will have a positive effect on the level of investment in the telecommunications market.

3.1.3. Consequences for cost calculations

95. The plan to switch to setting only definitive tariffs raises the question of what costs and traffic volumes will underlie the tariffs. In this connection the Commission considers that the most recent data should serve as a basis, supplemented where relevant with forecasts of changes in costs and traffic volumes that can reasonably be expected during the period in which the tariffs will apply. This will be explained below, looking at the regulations for originating access and for terminating access separately.

Originating access

96. On the basis of the proposal that the EDC systematic should be left in place for setting the tariffs for originating access, KPN should base its proposed tariffs under the EDC model on data from the previous fiscal year, supplemented where relevant with forecasts of changes in costs and volumes in the year under consideration. This means that KPN should base its proposed tariffs for the period 1st July 2001 to 1st July 2002 on figures for the fiscal year 2000, as well as on forecasts for expected changes in costs and volumes during the period 1st July 2001 to 1st July 2002.

97. In essence, the above means that the tariffs for a particular period are partly dependent on the forecasts made for that period. In the opinion of the Commission, this must mean that these forecasts and the way in which they have been established will have to play a more central role in the evaluation of KPN's proposed tariffs than in the past. These forecasts will have to be critically reviewed in the light of the views of other market parties.

98. It would be possible to base the tariffs for the following regulation period on the actual data for the previous fiscal year. This would mean that the tariffs to be fixed for the period 1st July 2001 to 1st July 2002 would be determined on the basis of the actual costs and volumes during the fiscal year 2000. The advantage of this alternative is that more or less subjective forecasts would play no role; however it has the disadvantage that the tariffs applied by KPN in a particular regulation period would relate more closely to the costs and volumes of the previous period than to those of

that period. The Commission considers that this disadvantage, which could lead to incorrect investment decisions on the part of KPN and parties interconnecting with KPN, rules out this alternative. The Commission has sufficient faith in the possibility of producing sufficiently objective forecasts, on the basis of which tariffs can be set that are in line with actual developments.

Terminating access

99. On the basis of the proposal that the tariffs set for terminating access should be based on a BU model, the model has been developed on the basis of the most recent information that is available, including forecasts relevant to the next regulation period (i.e. 1st July 2001 to 1st July 2002).

13.	**Interested parties are invited to submit their opinions in relation to the Commission's proposals for the validity period of the tariffs set by the proposed tariff regulation.**

14.	**Interested parties are invited to submit their opinions in relation to the Commission's proposal to only set definitive tariffs.**

15.	**Interested parties are invited to submit their opinions and ideas in relation to the possible consequences of the proposal mentioned in question 14, for example with regard to the significance of forecasts and the way in which these are evaluated.**

3.2. The tariff structure

100. Both the BU-LRIC model applied in setting tariffs for terminating access, and the EDC model applied in setting tariffs for originating access, produce average tariffs. However the practice in the past has been for KPN to break its interconnection tariffs down into a 'set-up' part (an amount per call) and a 'conveyance' part (per minute), and also into peak and off-peak rates (depending on the time of day or week). This breakdown of the average tariffs has been worked out by KPN on the basis of a method evaluated by the Commission. For the present, the Commission takes the view that this practice of dividing the average tariffs can remain in place after 1st July 2001. This opinion is explained below.

3.2.1. Set-up and conveyance

101. In the opinion of the Commission, the division of the interconnection tariff into a set up and a conveyance tariff is justifiable (for telephony at any rate) based on the observation that part of the

costs are attributable to the number of calls, and part to the number of minutes. The former costs should in principle be allocated to the set-up tariff, and the latter to the conveyance tariff.
102. The Commission maintains its opinion expressed during consultations at the time of the EDC-I process,[47] that the most elegant approach from the point of view of cost orientation would be to start with a so called 'flag fall charge'. This is a fee that is charged at the start of an attempt to make a call, regardless of whether a connection is made successfully. This flag fall charge would consist only of costs that were actually caused by that dialling attempt (for example, the processor costs in an exchange that are related to an incoming call). The transmission costs relating to a call (resulting from the continuing situation that, at the beginning of the attempt to place a call, the complete transmission path is reserved) would then have to be allocated to the conveyance tariff, which then starts at the moment the dialling attempt begins.

103. In light of the fact that end users are not charged a flag fall charge, the Commission considers it reasonable to apply a set-up charge that is only charged for a successful call. The set-up charge would then consist of the costs of establishing the connection and the costs related to the so called 'ringing time' for both successful and unsuccessful calls. This is in principle the system that KPN has been permitted to apply in the past, and which the Commission wishes to maintain for the tariff regulation applicable from 1st July 2001.

104. However, the Commission still considers that it is up to the interconnecting operators to determine whether they apply the same, or any, breakdown in their tariffs to their end users.

Originating access
105. In light of the above, the Commission considers that KPN can be permitted to maintain the calculation method it has used in the past for breaking down the average tariffs for originating access resulting from the EDC model. This calculation means in practice that KPN produces an allocation of the costs for set-up and conveyance based on an analysis of the use of network capacity, in accordance with the relevant cost driver (the number of calls or the number of minutes), which is certified by KPN's accountants. The calculations made by KPN will be evaluated by the Commission.

Terminating access
106. The Commission also takes the view that a set-up charge and a conveyance charge are reasonable in the breakdown of the average tariff for terminating access that is calculated on the basis of the BU-LRIC model. However there are two possibilities for the actual calculation of this breakdown. The analysis of the costs for the relevant cost driver (the number of calls or the number of minutes) can be performed on the basis of either the BU model, or of the analysis that KPN will have to carry out for originating access within the EDC model.

107. In relation to these possibilities, the Commission's preference is that the analysis should be performed on the basis of the BU model that is to be established. This is because it is based on the split between call-related and minute-related costs that would be applicable for an efficient operator in a competitive environment. This might, for example, have consequences for the extent to which it is necessary to reserve the complete transmission path (with all the costs that are involved) during the conversational part of a connection, or whether use is made of the most efficient data transmission.

16. Interested parties are requested to submit their views in relation to the considerations presented by the Commission in this section concerning the breakdown of average tariffs into a set-up and conveyance component. This to be done separately for both originating and terminating access.

3.2.2. Peak and off-peak

108. KPN applies a peak time/off-peak time structure in its tariffs to end users. In the Interconnection Guidelines, the Minister has given KPN the freedom, within reasonable limits, to apply this distinction by time of day (and of the week) as part of the efficient planning of its network. These limits are determined mainly by the requirement to preserve the integrity of the network. The Commission has always taken the view that the same distinction between peak and off-peak rates should be applied in its interconnection tariffs as in its retail tariffs.

109. In the EDC systematic that was applied until recently, the average tariffs were broken down, in a peak/off-peak structure, on the basis of the retail gradient calculated by KPN and the actual relationship between peak and off-peak traffic observed by KPN. The retail gradient gives the ratio between the average retail charge for peak time usage and that for off-peak usage.[48] On the basis of this information and the average tariff determined with the EDC model, the wholesale peak and off-peak rates were then set. Because the calculations were based on retail information that related to the peak/off-peak retail rates applicable at that time, the wholesale peak/off-peak structure was identical.

110. For the present, the Commission takes the view that this approach should be retained after 1st July 2001. The breakdown should then be carried out on the basis of the same retail information for both terminating and originating access. The Commission considers that the desired division into a peak/off-peak structure does not take into account the fact that the tariff for terminating access that is to be broken down is based on the BU model, and that for originating access is based on the

EDC model. In the opinion of the Commission, the prerequisite should be that, after the breakdown, the total costs for terminating (as determined in the BU model) and for originating (as determined in the EDC model) are still covered, but no more than covered, by the total revenues for terminating and originating traffic.

111. However the Commission is interested in any possible alternative approaches for creating a peak/off-peak wholesale structure.

Changes in the tariff structure

112. Since the tariffs to be set each year on 1st July, on the basis of the approved system, will in principle remain valid for one year (see section 3.1.1), the Commission considers that KPN should not be free to change the wholesale tariff structure in the interim period. If KPN wishes to introduce a change in the wholesale tariff structure from 1st July of a particular year, they should, in the opinion of the Commission, be required to inform their interconnecting operators, giving at least six months' notice.

17. Interested parties are requested to submit their views in relation to the considerations presented by the Commission in this section concerning the breakdown of average tariffs in a peak/off-peak wholesale structure. Alternative proposals are welcome.

3.3. Reasonable profit margin

113. From the European Interconnection guideline,[49] it is evident that KPN must be allowed to make a reasonable profit on its investment. This 'reasonable profit margin' can be included in the tariffs set by KPN for its interconnection and special access services. In accordance with the Interconnection Guidelines and the practical experience of the EDC-I and EDC-II processes, and on the basis of the arguments put forward during such, the Commission considers that the Weighted Average Cost of Capital (WACC) method[50] should continue to be used to determine the reasonable profit margin component in both terminating and originating tariffs after 1st July 2001. Moreover, the WACC method is also used when fixing of the price cap for KPN's end user tariffs, and the use of this method enjoys broad support from market parties. The IRG has recognised the application of the WACC method as a 'principle of implementation and best practice'.

18. Interested parties are requested to submit their views in relation to the Commission's proposal to use the WACC method for determining the reasonable profit margin.

3.3.1. The WACC method

114. The WACC method is based on the fact that both the suppliers of equity (the shareholders) and the suppliers of loan capital (the creditors) require a level of return on the capital they supply to the company. This return is based on i) a so called time preference rate, which is compensation for the fact that the capital provider does not have access to his assets during a particular period, and ii) the risk that is entailed in providing capital for that company.

115. With respect to this last point, equity and loan capital involve different risks. Since the interest and repayment obligations for loan capital are fixed, while dividends and capital gains depend on the result of business activities, a supplier of equity runs a bigger risk than a supplier of loan capital. The former will require a higher (expected) return in compensation for this higher risk. As a rule, the cost of equity for the company is therefore higher (as a percentage of equity) than the cost of loan capital.

116. In the WACC method the return on equity required by investors is determined using the 'Security Market Line' formula in the Capital Asset Pricing model:

$$Re = Rf + \beta\ (Rm-Rf)$$

Where:

Re	=	the required return on the equity;
Rf	=	the risk free interest rate (or the risk free return);
Rm-Rf	=	the market risk premium. This is a risk premium for investing in the share market, which is not risk-free;
β	=	the beta, or the systematic or undiversifiable risk.[51] The β indicates how much the return on investment for the share in the company in question varies with changes in the return on investment for the whole share market (also known as the stock market index).

117. The return required on loan capital is determined on the basis of the risk free interest rate, plus a risk premium for investment in loan capital, which is not risk free:

$$Rlc = Rf + Rp$$

Where:

Rlc	=	the return required on loan capital;
Rf	=	the risk free interest rate;
Rp	=	the risk premium for loan capital.

118. The weighted average after tax cost of capital can be determined on the basis of these required returns. This can be seen as the rate of return on total invested assets that the company needs to achieve to satisfy both the suppliers of loan capital and the shareholders:

WACC = Re (Ve/TV) + Rlc (Vlc/TV) (1-T)

Where:

Ve	=	the market value of the equity of the company. This is the total market value of all shares in the business;
Vlc	=	the market value of the company's loan capital;
TV	=	Ve + Vlc;
T	=	the marginal rate of taxation (company tax) for the company.

119. The WACC determined in this way is the WACC after company tax. The WACC before company tax, the pre-tax WACC, is the norm for the return on invested assets (ROA) that must be calculated:

WACC/1-T = Return on Assets (ROA)

120. In fact this is a norm for the ROA to be achieved. This norm is multiplied by the book value of the assets involved in producing a service (the asset base). The product is the 'cost of capital' component of the unit cost of the service (also known as the ROA component).

121. From the above it can be seen that one must know the relevant values for the following parameters to be able to determine the ROA:

- General parameters. These are not specific to the company, they apply to the market as a whole:

  - The risk free interest rate Rf;
  - The market risk premium (Rm-Rf).

- Specific parameters. These are specific for the company:

  - The β, or the systematic risk of the company;
  - The T, or the relevant marginal tax rate;
  - The Rp, or the risk premium for loan capital;
  - The ratio of loan capital to total assets or Vlc/TV (the gearing ratio).

3.3.2. Further considerations regarding the reasonable profit margin

122. As has already been noted, the Commission considers that the WACC method should be applied for both the tariffs for terminating access and those for originating access. However the Commission's plan to introduce a differentiation in the tariff regulation for the two kinds of interconnection services (BU-LRIC for terminating and EDC for originating) raises the question of whether a differentiation should also be introduced in the application of the WACC method.

123. In relation to this question, the Commission takes the view, for now, that this should indeed be the case, and that this differentiation should be reflected, as far as possible, in the relevant values for the specific parameters (the β, the T, the Rp, the gearing ratio). This, in the sense that the ROA that is relevant to terminating access (and is thus used within the BU model) should be based on specific parameter values that can be regarded as a fair representation of the 'efficient operator' whose network is modelled in the BU-LRIC model. The ROA relevant to originating access (and therefore used in the EDC model by KPN) should be based on values that are credible for KPN and its capital suppliers.

19.	**Interested parties are requested to submit their views in relation to the Commission's provisional position that the WACC method (as described above) should be differentiated for the proposed tariff regulation models for terminating access and originating access.**

124. Finally, it should be noted here that the determination of values that are relevant in the WACC method will be discussed within the consultation group involved in developing the BU-LRIC model. Any interested parties who have not joined the group are hereby invited to inform the Commission of any views they may have in relation to the determination of these parameters as part of their response to the present consultations. These views will be taken into consideration when the time comes for the Commission to determine the reasonable return.

3.4. Additional tariff regulations

Originating access

125. A downward trend in tariffs is evident in the EDC reports that KPN has thus far submitted to the Commission. The Commission expects that this trend will continue. Annual fluctuations in the tariffs fixed for originating access will have to be justifiable on the basis of changes in costs and traffic

volumes. The latter are to a large extent given, but the changes in costs (and the underlying forecasts), however accurate these may be, will be evaluated by the Commission for reasonableness and conformity with EDC principles.

126. Despite the above, the Commission is interested in opinions concerning the question of whether, and if so how, it may be possible to introduce additional tariff regulations to ensure that changes in KPN's originating access tariffs are in accordance with the broad trend recognisable in the telecommunication market, and that annual variations in comparison to that trend are not so large as to be harmful for the creation of effective competition.

20.	**Interested parties are requested to submit their views in relation to the possible desirability of additional tariff regulations for the special access services offered by KPN.**

Terminating access

127. The Commission expects that the results of the BU-LRIC will be less subject to fluctuations from year to year than the EDC systematic. The relevant costs are based on the investments of a hypothetical efficient operator and not on fluctuations in the actual level of investment, such as we have seen with KPN in recent years. Nevertheless it is possible that the tariffs for terminating access will begin to rise and fall rather than moving gradually down (or up). The Commission considers such fluctuations to be acceptable in themselves, provided the position of the Netherlands within the European benchmark for the terminating tariffs does not deteriorate and a price squeeze does not result from these fluctuations.

128. In view of the good geographical and demographic position in the Netherlands, the Commission assumes, *a priori*, that the costs of terminating access should at least be among the lowest in the European Union. If the BU-LRIC outcomes deviate from this, in the sense that KPN's terminating access tariffs would be higher than the European benchmark, the Commission will consider setting the tariffs at a level such that they are at least comparable to this benchmark, as is the case at present.

21.	**Interested parties are requested to submit their views in relation to the possible desirability of additional tariff regulations for the terminating access service offered by KPN, as well as in relation to the Commission's plan to explicitly compare the tariffs produced by the BU-LRIC systematic with the European benchmark.**

3.5. Capacity-based charging

129. One topic on which the Commission wishes to formulate a rather open question in the present consultations relates to capacity based charging. In the discussion document for the Interconnection Guidelines in 1997, the Minister of Transport, Public Works and Water Management made the following observation about capacity based charging:

'66. As for the choice between 'traffic-based costing' and 'capacity-based costing', I would like to present the following observations. In the first case the costs are determined for each call minute and in the second case it is the costs for the amount of capacity that is reserved. The advantage of the latter method is that the interconnecting operator has more freedom to determine his own tariff structure. However, capacity-based costing has the disadvantage that a beginning operator will have to pay for the capacity reserved, but in the start-up phase he has little traffic to put through the system. Another disadvantage of this method is that it has proved difficult in practice to translate the concept of capacity into operational measures. It is apparently difficult in practice to set tariffs on the basis of capacity purchased because the method is not commonly applied. I think it would be reasonable, for the immediate future, to employ traffic-based costing or, where possible and if the parties wish, combinations of capacity-based costing and traffic-based costing.'

130. Since then it has become apparent that there is a need in the market for an originating service for internet dial-in traffic, for which the tariff is not set per minute, but for a particular amount of capacity.[52] In view of this, the concept of capacity-based charging would seem to be appropriate at present.

131. On the basis of the report 'Interconnect, a global guide to effective telecommunications' (OVUM, 1997), the Commission defines capacity-based charging here as follows. The costs are a function of the network capacity that is required at the moment of maximum network capacity utilisation ('overall busy hour'). The size of the network is in fact determined by the maximum volume of simultaneous traffic, which means that the total costs are determined by the network scale. On the basis of the concept of capacity-based charging, one could say that this should imply that an interconnecting operator should in principle only have to pay for that part of KPN's network capacity that it uses during the busy hour for that network. Even if the amount of capacity purchased by the interconnecting operator outside the overall busy hour is higher than the capacity it purchases during the overall busy hour, it should not have to pay any extra for that use of the network (for example, excluding possible operating costs), since the extra capacity outside the overall busy hour has no influence on the total required network capacity.

132. The Commission wishes to put the following questions to interested parties:

22.	**Interested parties are requested to submit their views in relation to the interpretation of capacity-based charging given here. Interested parties are invited to give more detailed descriptions of capacity-based charging, and the advantages and disadvantages associated with this concept.**

23.	**Interested parties are requested to submit their comments concerning the question of how the concept of capacity-based charging relates to KPN's EDC model and, in a wider context, to the EDC systematic.**

24.	**Interested parties are requested to submit their views and comments about the question of which interconnection and special access services could be billed using capacity-based charging, and under which conditions.**

Chapter 4. The EDC systematic to be applied for originating access

133. This fourth chapter deals with a number of subjects that are specific to the intended maintenance of the EDC systematic by the Commission for tariff regulation for originating access.

4.1. The maintenance of the EDC systematic for originating access

134. The intended maintenance of the EDC systematic by the Commission for tariff regulation for originating access, as stated in section 2.3, means that in the opinion of the Commission an additional EDC process, broadly the same as the EDC-I and EDC-II processes, should be initiated to assess the cost orientation of the tariffs for originating access. The Commission sees the most important differences, in relation to these earlier processes, to be the proposal that the new EDC process should be exclusively aimed at originating access, and the Commission intentds to end the efficiency deductions that were applied in the past within the EDC-I and EDC-II processes.

135. For an explanation of the EDC systematic and the EDC process carried out for that purpose, refer to the EDC-I and EDC-II decisions, as well as the supporting consultation documents and intermediate decisions.[53] On the basis of these documents, a detailed insight can be gained into the EDC systematic. Here, it is sufficient to give an overview of the general processes involved with the maintenance of the EDC systematic.

136. In line with the earlier EDC processes, KPN should, in line with the decision made by the Minister of Transport, Public Works and Water Management in June 1997 concerning the interconnection dispute between Telfort and KPN, submit to the Commission no later than 1st May of each year:

a. An implemented version of the EDC model;
b. A report on the procedure that led to the model that demonstrates the contribution of market parties in establishing the model;
c. A statement made by an accountant that guarantees the accuracy of the cost data that resulting from the model;
d. The resulting tariff proposals calculated by KPN.

137. The EDC report that KPN should submit to the Commission no later than 1st May each year (made up out of the elements a. to d. listed above) is subsequently evaluated by the Commission. The Commission proposes that this evaluation in particular be carried out based on an analysis carried out by KPN into the reasons for any difference with the tariffs calculated in the previous EDC

report ('the delta approach').[54] Based on this analysis, the Commission can subsequently decide on the reasonableness of the costs calculated for originating access by KPN. If the Commission determines that the passing on of certain costs is not reasonable, KPN will be asked to adjust the EDC model accordingly and to provide the Commission with the resulting tariffs. The result ultimately considered reasonable by the Commission will be published in a decision to be taken by the Commission no later than 1st July each year.

138. While evaluating KPN's EDC report, the Commission also intends to make use of the insight and experience of other market parties. For this purpose it shall in due course set up a consultation group that specifically focuses on this task.[55] As well as the meetings of this consultation group, the Commission also intents to hold a number of in depth sessions between OPTA and KPN, at which certain (confidential commercial) information can be dealt with in more detail. An element in the assessment of KPN's EDC report that has become increasingly important is the focus on the prognoses used by KPN for cost developments and traffic volumes.

25. Interested parties are asked to state their positions concerning the Commission's intended delta approach to the EDC report to be submitted by KPN to the Commission for evaluation.

4.2. The services to be included in the EDC report

139. The Commission considers that the implementation of the EDC systematic for originating access must mean that KPN leaves its EDC model largely unchanged, as well as the EDC report to be drafted based on that model and the results applicable for a specific year. This means that the EDC model is in any case directed at the cost calculations for those services that were already included in the EDC-II report of 29th April 1999, with the understanding that KPN should at least add the following to the report to be submitted to the Commission no later than 1st May 2001:

a. The MDF access service. This in accordance with the determinations of i) the Guidelines concerning the unbundled admission to the local loop of 12th March 1999, ii) the adjustment of that (OPTA/I/99/7938), and iii) the decision in which the definitive tariff is set at the interim tariff P0 by the Commission (OPTA/IBT/2000/204108, dated 25th May 2000), notwithstanding any change in the guidelines;
b. The KPN Telecom PSTN 800/90x Connect Service;
c. The 06760 Internet Connect Service (metered);
d. The 06760 Internet Connect Service (unmetered).

140. In addition to the services already included in the EDC-II report, MDF access and the aforementioned admission services, KPN should include in its EDC report the basis of the EDC principles and starting points supporting and justifying the tariff proposals for the following facilities or provisions associated with special access services:

e. The KPN PSTN Telecom Customer Billing Service;
f. The tariff per mutation valid in the framework of carrier pre-selection;
g. The administration costs connected with a number allocation.

26. Interested parties are asked to state their positions concerning the services included by KPN in its EDC model and EDC report, and the facilities and provisions that are understood by the Commission to be inextricably linked to them.

Chapter 5. The BU-LRIC systematic to be applied for terminating access

141. In section 5.1, this chapter takes a more detailed look at the development of the BU-LRIC model to be applied for the terminating access, and in section 5.2 into a few principles underlying the LRIC systematic.

5.1. The development of the BU-LRIC model

142. As stated earlier, the Commission proposes to use the BU-LRIC systematic to set the tariffs for KPN's terminating access. Implementation of this systematic implies the development of a BU-model in which the FL-LRIC principles are the starting point. The Commission has already started the development of this BU-LRIC model. This is because the development of the model is in fact a separate trajectory, separate from underlying consultation which particularly deals with the more policy related aspects of the regulatory concept proposed by the Commission. Associated with this is the proposal to set terminating access tariffs based on the BU-LRIC systematic from 1st July 2001, which would prevent a situation in which the model development is only started after the conclusion of this consultation process.

143. For the development of the BU-LRIC model, the Commission has invited market parties to join the consultation group especially formed for this purpose.[56] The composition of this consultation group, consisting of 19 market parties, represents the interests of the Dutch telecommunications market. The tasks of the consultation group members are directed towards the provision of input data necessary for the model (such as equipment prices, running costs, and so on), contributing to the decision making process concerning the principles and starting points that are valid within the LRIC systematic, as well as supplying more general technical and financial/economic information. The actual development of the BU-LRIC model is in the hands of NERA (in cooperation with TCUK), the consultant called in by OPTA. There are five meetings planned for the consultation group, the first of which took place on 28th November 2000. The Commission will report the progress of the model development in 'Connecties', the OPTA news and publication magazine.

144. Finally, the following should be noted. The actual development of the BU-LRIC model is organised by the Commission as a process that is independent of this consultation process. Thus, in this sense the current consultation concerns the role of the BU-LRIC model in the tariff regulation applicable from 1st July 2001 (in which the Commission proposes a leading role for terminating access), and not the contents of that model, since the process of model development is specifically aimed at the contents of the model, and not on the more policy aspects that are central to this

consultation document. The Commission believes that this will allay any fears that the transparency of the current consultation will be adversely affected by the existence of the parallel track.

5.2. The FL-LRIC principles

145. The proposed cost calculation method is based on the 'Forward Looking Long Run Average Incremental Costs' (FL-LRAIC). A number of underlying principles for the FL-LRIC model are explained in this section to give some insight into this cost calculation method.

'Incremental'
146. FL-LRAIC is an incremental cost accountancy systematic. This means that when applying the systematic, the question will be answered of how much extra cost arises at the moment that an extra production quantity is added to a certain existing production (or the chosen increment). Or, in other words, how much cost can be avoided when a certain part of the production is dropped. This means that a choice must be made of which the relevant increment consists. In principle there are many open possibilities for this which can be globally grouped into products, services, components and elements. As far as the regulation of interconnection tariffs for the local loop is concerned, this generally includes all services that are offered together with that local loop (for example an analogue connection or an ISDN connection), while for the transmission network it includes all services that will use that transmission network (for example, the retail traffic of KPN).

Common costs
147. With the application of the incremental approach to cost accountancy it will be evident that different 'increments' have certain cost categories in common. Such common costs arise from the production of all or part of the products or services that are offered by that particular provider, and are therefore not specific to a single increment.

148. In the strictest application of the LRIC systematic, such costs are not accounted; this is because if the chosen increment was dropped, the common cost would still occur (and also for the production of the other increments for which those common costs are relevant). In accordance with the recommendation of the European Commission, the tariff regulation using LRIC generally takes into account the relevant part of the reasonably ascribable forward looking common costs.

'Average'
149. The 'forward looking long run average incremental costs' can be defined as the costs associated with all the products or services in the chosen increment. In the case that the increment relevant for the transmission network is determined as all services that use that network, the costs connected

with this group of services can be spread across all the traffic connected to these services. In this way the *average* incremental cost price arises.

'Forward looking'

150. The concept of 'forward looking' generally means that the correct cost base is formed by the costs made with a view to future operations. Or, in other words, the costs that are connected with a network built today (possibly within certain limiting conditions such as, for example, the existing network topology). Further, where the purpose of tariff regulation is to enforce a tariff level that is representative of a situation with effective competition, the possibility will be kept in mind that providers will not be fully able to earn back the costs that they have incurred in the past. When setting their tariffs they are dependent on the competitive operation of the market, and the tariffs established in the market can be lower than the costs incurred in the past.

'Long Run'

151. Taking into account long term factors means that in principle all costs should be considered as being variable. In other words, the long term is defined as the time horizon in which no single cost category is fixed. This means that all costs can adapt to the addition of the chosen increment.

Conclusion

152. To summarise, it can be stated that FL-LRAIC concerns the costs in the long term associated with the production of a certain increment, starting from a forward looking approach to the relevant costs.

27.	**Interested parties are asked to state their position concerning the description of the FL-LRAIC systematic given by the Commission.**

Chapter 6. Questions to interested parties and subsequent procedure

6.1. The questions

In the previous chapters the Commission has formulated a number of questions. These are restated here, and the Commission requests interested parties to address these questions in their response. You can of course also to refer to other related subjects in your response and to discuss to subjects that, in your opinion, have not received sufficient attention in this document.

1.	**Interested parties are requested to indicate whether or not they agree with the description of the special nature of the terminating access service.**

2.	**Interested parties are requested to give their opinion about the intention of the Commission to introduce the FL-LRIC cost calculation systematic in order to implement the cost orientation concept for the terminating access service in practice.**

3.	**Interested parties are requested to give their views on the intention of the Commission to use a bottom up model in order to implement the cost orientation concept for the terminating access service in practice.**

4.	**Interested parties are requested to put forward any suggestions they have with regard to the question how the leading role of the bottom up model can be implemented in practice.**

5.	**Interested parties are requested to state whether or not they agree with this description of originating access.**

6.	**The interested parties are requested to give their views about the firm intention of the Commission to continue using the EDC systematic in order to set cost orientated tariffs for originating access (without efficiency reductions).**

7.	**Interested parties are requested to submit their viewpoints with respect to the Commission's intention for services and provisions inextricably linked to special access services using EDC principles as the basis for interpreting the concept of cost orientation.**

8. Interested parties are requested to give their opinion about the possibility of tariffs for MDF access being allowed to evolve to a tariff level based on the BU-LRIC systematic over a five-year period.

9. Interested parties are requested to give their opinions about the Commission's proposal to review the tariff regulation for MDF access on the basis of actual market conditions once the five year period has come to an end.

10. Interested parties are requested to submit their viewpoints with respect to the Commission's desire for a differentiation between originating speech and internet traffic.

11. Interested parties are requested to submit their ideas with respect to the question as to how differentiation between originating speech and internet traffic can be realised and which distinctive characteristics should be used for this purpose.

12. Interested parties are requested to submit the viewpoints with respect to the Commission's provisional view that the tariff regulation for interconnected leased lines should be linked to the EDC systematic.

13. Interested parties are invited to submit their opinions in relation to the Commission's proposals for the validity period of the tariffs set by the proposed tariff regulation.

14. Interested parties are invited to submit their opinions in relation to the Commission's proposal to only set definitive tariffs.

15. Interested parties are invited to submit their opinions and ideas in relation to the possible consequences of the proposal mentioned in question 14, for example with regard to the significance of forecasts and the way in which these are evaluated.

16. Interested parties are requested to submit their views in relation to the considerations presented by the Commission in this section concerning the breakdown of average tariffs into a set-up and conveyance component. This to be done separately for both originating and terminating access.

17.	**Interested parties are requested to submit their views in relation to the considerations presented by the Commission in this section concerning the breakdown of average tariffs in a peak/off-peak wholesale structure. Alternative proposals are welcome.**

18.	**Interested parties are requested to submit their views in relation to the Commission's proposal to use the WACC method for determining the reasonable profit margin.**

19.	**Interested parties are requested to submit their views in relation to the Commission's provisional position that the WACC method (as described above) should be differentiated for the proposed tariff regulation models for terminating access and originating access.**

20.	**Interested parties are requested to submit their views in relation to the possible desirability of additional tariff**

21.	**Interested parties are requested to submit their views in relation to the possible desirability of additional tariff regulations for the terminating access service offered by KPN, as well as in relation to the Commission's plan to explicitly compare the tariffs produced by the BU-LRIC systematic with the European benchmark.**

22.	**Interested parties are requested to submit their views in relation to the interpretation of capacity-based charging given here. Interested parties are invited to give more detailed descriptions of capacity-based charging, and the advantages and disadvantages associated with this concept.**

23.	**Interested parties are requested to submit their comments concerning the question of how the concept of capacity-based charging relates to KPN's EDC model and, in a wider context, to the EDC systematic.**

24.	**Interested parties are requested to submit their views and comments about the question of which interconnection and special access services could be billed using capacity-based charging, and under which**

25.	**Interested parties are asked to state their positions concerning the Commission's intended delta approach to the EDC report to be submitted by KPN to the Commission for evaluation.**

26.	**Interested parties are asked to state their positions concerning the services included by KPN in its EDC model and EDC report, and the facilities and provisions that are understood by the Commission to be inextricably linked to them.**

27.	**Interested parties are asked to state their position concerning the description of the FL-LRAIC systematic given by the Commission.**

6.2. The subsequent procedure

Interested parties can inform the Commission of their vision concerning the questions listed above in writing until 26th January 2001. Reactions should be sent by post and in electronic form (diskette or e-mail) to:

Mrs. M. van Druten
Interconnection and Special Access Department
OPTA
P.O. Box 90420
2509 LK The Hague
E-mail: m.vandruten@opta.nl
Subject: "Consultation tariff regulation interconnection and special admission services"

After expiry of this period, all responses will in principle be made public by means of publication on the OPTA website and/or a printed publication. Parties that feel that parts of their comments should be treated as commercially confidential are requested to indicate this explicitly with additional explanation as to why confidentiality is necessary. Commercial confidential data will not be published.

As a part of the consultation, a public hearing will be held on 17th January 2001 in The Hague. Interested parties who wish to be present at the hearing are requested to inform the contact person at the above address of their intentions no later than 10th January 2001 (by letter or e-mail). You should also state whether you wish to make a contribution or not. This document is available from the OPTA website: www.opta.nl

Appendix: The EDC cost accountancy systematic

The EDC model is a 'top-down' model, which means that the existing situation is the starting point, i.e. the KPN network and the costs associated with the interconnection services for that network. The model is fed with the costs as they are accounted for in the KPN accounts ('embedded') and are checked by the accountant as such.

Working with the accounted cost in the accounts means that the valuation bases used in those accounts are followed. Because KPN values its assets against historic sales prices, the KPN EDC model should be based on historic cost, were it not that the Commission decided in the 28th November decision[57] that KPN should value the main network on the actual cost in the EDC model. KPN is allowed to use the 'Financial Capital Maintenance' (FCM) method, which means that a price decrease (increase) of a certain asset is immediately translated into a decrease (increase) of the book value, and also in increased (decreased) write off costs over the particular year.

Contrary to the starting point of the existing KPN network, the Commission determined in the 28th November decision that KPN should use the 'forward looking' principle. This means that KPN can not calculate the costs associated with situations where it can be foreseen that they will soon represent costs made in the past, or where they can be said to be the result of an avoidable inefficiency. KPN should also use the projected future values for the traffic quantities to be fed into the model.

With EDC, the costs accounted to a product or a service that is (directly or indirectly) unequivocally and necessarily to be ascribed to that particular product or particular service. Because of this, the EDC systematic can be characterised as an incremental cost approach, in the sense that the accounted costs will be the same as the costs that are necessary to be able to supply an extra quantity (the 'increment') of a product or service. Strictly following this incremental accountancy systematic means that the joint as well as the common costs of KPN are not accounted for in the interconnection and special admission services, but are accounted for against other services or against profit. The Commission has considered the fact that this is not reasonable for all types of joint and common costs, and decided in the 28th November decision that KPN should use the standalone criterion concerning these costs. This means that those types of joint and common costs can be accounted that the Carrier Services division (the 'supplier' within KPN of the interconnection and special admission services) would also have made if it had been an independent company. This includes 'economies of scale and scope'.

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[1] Official Gazette 1998, no. 610
[2] EDC is short for 'Embedded Direct Costs'.

[3] For more information about the EDC model, CBE appendix to this consultation document. Also see the decisions taken by the Commission in connection with the application of the de C. systematic (the EDC-I assessment of 1 July 1998 (OPTA/MI/98/1537), the decisions in the EDC-I dispute of 28 April and 28 May 1999 (OPTA/IBT/99/2315 and 5955), the EDC-IIA decision of 29 November 1999 (OPTA/IBT/99/8000), the EDC-IIB decision of 16 December 1999 (OPTA/IBT/99/8393).

[4] In the EDC systematic the provisional tariffs for the coming year were set based on the prognosis for traffic volumes and expected cost developments. The definitive tariffs were set afterwards based on the actual traffic volumes and actual costs.

[5] Official Gazette 1997, No. 104

[6] As a result of this scarcity, the number of actual traffic minutes was less than the amount there would have been if there had been no scarcity.

[7] The possibility of eventually moving to a system based on a BU model was already recognised by the Commission in the second consultation document of the EDC-I process (dated 26 March 1998).

[8] OPTA/JUZ/2000/201775, Official Gazette 2000, No. 144

[9] The regulatory concept referred to can be found at OPTA's website (under 'Interconnectie', 'Achtergrondinformatie').

[10] OPTA/IBT/2000/202891

[11] In reality, the provisional bridging tariffs set on 30 June 2000 will be replaced with retroactive effect by the transitional tariffs set on 29 September 2000.

[12] Price squeeze consultation document dated 9 October 2000

[13] 98/C265/02

[14] ONP stands for 'Open Network Provision'.

[15] Communication from the Commission to the European Parliament, the Council, the Economic and Social Committees, and the Committee of the Regions. Towards a new regulation framework for electronic communication infrastructure and associated facilities. Review of the communication regulation 1999, COM(1999) 539.

[16] The results of the consultation process can be found in the Commission document on the public consultation process, COM(2000)239, 26 April 2000.

[17] Five working documents of DG Information Society, INFSO A/1, 27 April 2000.

[18] Proposal for a directive of the European Parliament and of the Council on a common regulatory framework forelectronic communications networks and services (COM(2000)393), on access to, and interconnection of, electronic communications networks and associated facilities (COM(2000)384), on universal service and users' rights relatingto electronic communications networks and services (COM(2000)392), on the authorisation of electronic communications and services (COM(2000)386), concerning the processing of personal data and the protection of privacy in the electronic communications sector (COM(2000)385. Proposal for a regulation of the European Parliament and of the Council on unbundled access to the local loop (COM(2000)394).

[19] Regulation of the European Parliament and of the Council on unbundled access to the local loop, 5 December 2000.

[20] See footnote 15

[21] COM(1999)539, pp. 29, 30

[22] COM(1999)539, p. 40

[23] Recommendation 98/195/EG of the Commission of 8 January 1998 concerning interconnection in a liberalised telecommunications market, PB L 73 of 12 Much 1998, and the recommendation of the Commission of 29 July 1998 to change recommendation 98/195/EG of the Commission, PB L 228 of 15 August 1998.

[24] Proposal for a directive of the European Parliament and of the Council on access to, and interconnection of, electronic communications networks and associated facilities (COM(2000)384), consideration 14.

[25] COM(1999)539, p.p. 38, 39

[26] See footnote 18

[27] www.opta.nl, under ' Interconnectie', ' Achtergrondinformatie'

[28] Parliamentary documents II 1996/97, 25 533, No. 3, p. 27

[29] Decision dated 22 September 1999, OPTA/IBT/99/7686

[30] With tariff differentiation is meant the possibility that KPN can pass on the tariffs maintained by other providers for terminating access to its end-users. This is because of the identical differentiation of its end-user tariffs.
[31] See footnote 23
[32] For a more detailed explanation of the EDC model, please see the appendix.
[33] A telecommunication network is defined as 'the transfer apparatus, and where applicable the routing apparatus and other technical resources that make the transfer possible of signals between network connection points by cables, radio waves, optic resources, or other electromagnetic resources' (article 1.1, subsection d, TA).
[34] In the EDC-IIA decision of 29 November 1999, the Commission reached the conclusion that this service is a form of special access about which the Commission is of the opinion that a request for such is reasonable.
[35] For 800/90x services, the actual tariffs applied are also determined by the information provider. It can choose to have either a 'free' 0800 number, or a 90x number at a particular tariff level.
[36] In this connection, the Commission refers to article 13, paragraph 1, of the Collaboration protocol between the Netherlands Competition Authority (the NMa) and OPTA, dated 19 December 2000.
[37] The 1999 Communications Review, p. 33
[38] See also the guidelines: collocation dated 20 December 2000 (OPTA/IBT/2000/203357), section 'principles of billing and settlement'
[39] OPTA/J/99/1443, as modified on 8 November 1999 (OPTA/I/99/7938).
[40] See also appendix 1 of the guidelines concerning MDF access
[41] It should be noted that the developments already under way for the terminating access BU-LRIC model also provides for the modelling of KPN's access network.
[42] Guidelines collocation dated 20 December 2000 (OPTA/IBT/2000/203357)
[43] Order dated 28 July 2000, page 23
[44] C (1999) 3863.
[45] The Commission differentiated 3 capacity classes: 64kb/s 2 Mb/s and 34Mb/s
[46] This cycle meant, in brief, that on 1 July of each year the definitive tariffs for the previous period, and the provisional tariffs for the following period, were set. The definitive tariffs were determined by the actual costs and traffic volumes from the previous period (i.e. the previous fiscal year). The provisional tariffs were based on forecasts for the then current fiscal year. The College prescribed a symmetrical settlement system for possible differences between the provisional and definitive tariffs: if the definitive tariffs over a year were lower than the provisional tariffs, KPN must pay the difference to the parties that have interconnections with it; if the definitive tariffs were higher than the provisional tariffs, the interconnecting parties must pay KPN.
[47] EDC-II Consultation Paper, 26 March 1998, pp. 13 and 14.
[48] For example, a retail gradient of 1.5 indicates that a call during peak times costs on average one and a half times as much as a call in off-peak hours.
[49] Guideline 97/33/EG of the European Parliament and the Council, of 30 June 1997, PB No. L 199/32 of 26.7.97
[50] WACC is short for Weighted Average Cost of Capital
[51] For a more detailed explanation see paragraphs 152 to 154 of the Price cap evaluation of 27 September 1999 (OPTA/EGM/99/7526).
[52] For example in the case of Worldcom's request that KPN provide FRIACO services. See the decision dated 21 November 2000 (OPTA/IBT/2000/202886).
[53] For a brief overview of EDC as a cost accountancy systematic, refer to the appendix.
[54] This instead of the previously applied reconciliation with a BU model.
[55] This commission is not to be confused with the commission as currently involved in the development of the BU-LRIC model.
[56] This invitation was published in the Official Gazette, distributed through the administration of the FIST and directly communicated to the commercial parties who were members of the commission involved in the EDC-II.
[57] Decision concerning EDC and BU cost models dated 28 November 1997 (OPTA/MI/1157), Off. Gaz. 1997 no. 247 (Intermediate decision resulting from the first consultation held during the EDC-I process).