Consultation Paper No. 4/2005

Telecom Regulatory Authority of India

Consultation Paper

On

Interconnection Usage Charge Review

New Delhi

17th March 2005

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PREFACE

PREFACE

On 29th October, 2003, the Authority had notified an Interconnection Usage Charges (IUC) Regulation which included carriage, termination and Access Deficit Charges. This was the result of a review exercise of the IUC/ ADC Regime notified earlier in January 2003. In the October 2003 regulation, the Authority had mentioned that in subsequent years, the Authority would review the size of the ADC payments, who should be beneficiaries of the ADC Regime, and the structure of the ADC regime.

The Authority in its IUC Regulation dated 6th January 2005 had noted that Audited Results of BSNL and other Service Providers had been recently announced and the Authority had started receiving separated accounts from the operators. Based on this and other information, it will take some time to examine the issues like admissibility and quantum of ADC for Fixed Service Providers as detailed analysis of the relevant network elements data, including the verification of the cost items presented in the Annual Reports and separated accounts of Service Providers will be required.

The Authority had mentioned in its Regulation of 6th January 2005 that it will address a number of issues through a Consultation Paper. The Authority has brought out in the above regulation, the overlap between the disbursed USO Fund and the ADC amount due. It had further proposed to address in the next Consultation Paper, the greater application of the Forward Looking Long Run Incremental Costs for ADC computation in the face of greater use of newer and less expensive technologies. It had noted the need to account for factors such as the net effect of depreciation in the gross CAPEX and allocation of costs to non-fixed line items, which are likely to decrease the overall costs per subscriber over time. In addition issues relating to additional sources of generation of ADC, BSNL being given Mobile Licenses without Entry Fee, etc were also proposed to be discussed and analysed including Revenue Share Model, Mixed Model, unequal Revenue Share for International and National Long Distance traffic streams, etc.

The Authority has now come out with a Consultation Paper which addresses a wide range of issues, including:

a. Justification of ADC on Fixed Wireless Lines and admissibility of ADC for non-BSNL Fixed Line Operators.

b. ADC as Percentage of Revenue, and its various variants including mixed models, higher ADC on NLD and ILD calls etc.

c. Interconnection Usage Charges (Carriage and Termination issues) including those for Incoming International calls, and whether to have differential rates for carriage and termination.

d. Implications of increasing disbursement of USO Fund on the quantum of ADC payable.

In parallel, the Authority would examine the present ADC charges within 3 to 6 months of the implementation date (1st February 2005), based on latest traffic inputs. This data has already been called from the Operators.

The Authority invites written responses from all the stakeholders latest by closing hours of 15th April 2005. It would be appreciated if the response is accompanied with an electronic version of the text through E-Mail. For further clarification, stakeholders can get in touch with Shri Rakesh Kumar Bhatnagar, Advisor (FN) on 011-26166930. E-Mail Address shall be rkgujral@trai.gov.in.

Chapter-1

Background

1.1 In the fast changing technological era, intense competition, dynamic changes and new issues as a result of various developments are thrown open on regulatory and licensing front. The issues need to be resolved without disturbing the growth in the telecom sector while adhering to licensing requirements. A number of such issues were discussed in the 6th January 2005 IUC regulation. In the background of these developments including availability of more minutes for the Carriage segment as a result of rapid increase in the subscriber base especially for GSM and CDMA Mobile services and the likely reduction in lease line charges, there is a need for reviewing the cost-based Interconnection Usage Charges for Carriage, Transit, Termination and even on admissibility and type of Access Services covered under Access Deficit Charge Regime.

1.2 Framework of IUC regime is already established by TRAI through its regulation dated 23rd January, 2003, which was subsequently reviewed on 29th October, 2003 and further amended on 6th January, 2005. As detailed therein, IUC has to be determined based on Minutes of Usage for various un-bundled network elements and the cost of these elements. ADC was derived based on consideration of cost based rental, local call charges, abnormally low rental in Rural areas, free calls etc. to make the basic telecom services affordable to the common man, to promote both Universal service and Universal access as per NTP'99. TRAI estimates that by the end of 2006, tele-density of 15 could be achieved which is almost three and a half years ahead of NTP'99 target.

1.3 The Authority, after following the public consultation process and discussions with the industry notified a revised IUC regime on 6th January, 2005, which has been implemented from 1st February, 2005. In specifying its 6th

January, 2005 ADC regime with reduced ADC rates, the Authority has provided a strong basis to the operators for offering reduction in the long distance tariffs which would further boost subscriber growth, as well as to pave the way towards more and more usage of the long distance networks. The ADC Regime notified under the 6th January 2005 Regulation, was followed by immediate announcement of reduction in long distance call charges by many Cellular Service Providers. Cost economies of scale, recent decreases announced by the Authority for IPLC (Half Circuit) and likely decrease in domestic lease line tariffs, would lead to further reductions in tariffs as further increases in the subscriber base take place. More areas would also be brought under the coverage of Mobile Services.

1.4 The Authority's decisions on various key issues that lead to the present Consultation Paper finds a place in the Explanatory Memorandum to the Regulation of 6th January, 2005. Some relevant paragraphs from the Explanatory Memorandum are reproduced below:

<u>Para 24</u>

> *The Consultation Paper …………The Authority has further noted that Audited Results of BSNL and other Service Providers have just been announced. It will take some time to examine the issues like admissibility and quantum of ADC for Fixed Service Providers as detailed analysis of the relevant network elements data, including the verification of the cost items presented in the annual reports of service providers will be required. As discussed in detail, the Authority proposes to address these issues through a Consultation Paper when related issues like implementation of the USO regime, differential termination charges for International and national long distance charges are also addressed. In this background adequacy of a uniform percentage related to AGR vs higher percentages*

of revenue share percentage for National Long Distance and International Long Distance traffic streams may also be relevant.

Para 26

We need to bear a number of factors in mind in the context of a revision of the ADC regime. The net effect of depreciation in the gross CAPEX and allocation of costs to non-fixed line items is likely to decrease the overall costs per subscriber over a period of couple of years. Issues relating to BSNL being given Mobile Licenses without entry fees, increasing application of Forward Looking Long Run Incremental Costs to estimate the ADC and an increase in the disbursements made through USO are also needed to be taken into consideration. ***These factors will be considered in greater detail in the Authority's forthcoming Consultation Paper****.*

Para 47

The Consultation Paper will cover issues such as

- *a) Admissibility and extent of ADC to BSNL after review of data,*
- *b) Allowing other fixed line operators to retain ADC out of outgoing call tariff,*
- *c) Admissibility of ADC for WLL(F),*
- *d) Stage at which ADC can be charged as Revenue Share,*
- *e) IUC (carriage and termination issues) including those for Incoming International calls.*

Para 55.

Availability of relevant traffic data and actual ADC collections including notional collections from calls originating in Fixed Line Operators is pertinent to this issue also. Data issues are addressed in a subsequent *section separately. The Authority has taken note of the fact that BSNL is a major party from which full data as per the prescribed formats has not been received. BSNL has submitted that it is not in a position to give the requisite data on traffic parameters because it does not have CDR based system. The Authority recalls in this context the TRAI Press Release 2/2003 dated 19th April 2003 which had, on the basis of BSNL's input, stated that: "The interim phase will end by 31st March 2004 with implementation of CDR based billing system, by all operators including BSNL".*

Para 56

The Authority also recalls the complaints from service providers that BSNL is using the revenues from ADC to cross-subsidize its tariffs in lucrative segments and out-compete the others. The Authority had examined the international call tariffs of BSNL, and had found that the BSNL tariffs covered costs. This matter, however, does continue to be a concern with the industry and the Authority will be examining situations where tariffs are specified resulting in an anti-competitive situation.

Para 81

Taking account of the increase in the overall minutes since the previous ADC exercise, the Authority has decided that:

……………..

- *A new consultation paper will be brought out on admissibility and quantum of ADC for Fixed Service Providers based on an examination of the relevant network elements data, including the verification of the cost items that are presented in the annual reports of service* *providers, the implementation of the USO regime, and other factors which have been mentioned above as affecting the ADC estimates.*

1.5 The various issues mentioned above are taken up for the present Consultation Process and are covered in subsequent Chapters.

Chapter 2

Admissibility and Extent of ADC

A. Should ADC be calculated only on the basis of Rural Fixed Lines?

2.1 Various comments received in response to the Consultation Paper Dated 23rd June 2004 had stated that the ADC Regime could be changed in such a way that ADC is provided only for Rural fixed wire-lines i.e. covering only those lines where regulated tariffs are still in place.

2.2 The average monthly rental revenue per subscriber, in the standard tariff package for fixed wire-lines, is lower for subscribers in systems with lower switching capacities, particularly so in Rural areas. The Rentals for Rural Fixed wire-lines are lowest, whereas Rentals for Urban and Metro Fixed wire-lines are many times higher.

2.3 On the Costing side, the scenario is different with CAPEX as well as OPEX for Rural Wire-lines being higher than those of Fixed Wire-lines in Metro/ Urban lines.

2.4 Service Provisioning in Metro Areas with the highest rental revenue per subscriber for fixed wire-lines is much better as compared to the corresponding service provisioning in Rural Areas. As a result Service Providers providing Services only in Urban Areas or predominantly in Urban Areas and those providing Services throughout the country including in Rural Areas cannot be equated.

2.5 Table 3 of the January 2005 IUC Regulation is reproduced below for ready reference:

Table 3 of the January 2005 IUC Regulation

Percentage distribution of FWT lines in the total Fixed Subscriber Base of Fixed Operators and Percentage of Rural lines in total Fixed Lines provided by Fixed Operators as on 30th September 2004

Service Provider	Name of the Circle/ Service Area	% of Fixed Wireless Lines in Operator's Fixed Lines	% of Rural lines in Operator's Fixed Subscriber Lines
BSNL	All India (except Delhi and Mumbai)	2.60	35.20
MTNL	Delhi & Mumbai	1.09	0.00
Bharti	Delhi, Madhya Pradesh, , Tamil Nadu, Karnataka, Haryana, Chennai	3.46	0.08
TATA	Maharashtra, Mumbai, Andhra Pradesh, Tamil Nadu, Chennai, Karnataka, Delhi, Gujarat	77.39	0.23
Shyam	Rajasthan	18.49	3.37
HFCL	Punjab	24.53	0.45
Reliance	All Circles except Assam and North East	97.27	0.66
TOTAL		7.70	28.93

Source : Operators' Submission to TRAI

2.6 The above Table shows that BSNL has more than one third of its subscribers in Rural areas while others have nil or virtually nil. The monthly

Rental Revenue per subscriber of BSNL is thus relatively low compared to other fixed line operators. Even if one assumes identical cost based rental for all Fixed Line Operators, this implies higher ADC per subscriber for BSNL based on consideration of Rental Revenues.

2.7 The ADC per subscriber for networks with large Rural presence is higher also because the costs in Rural areas, especially for Access component (wire-line only) that is relevant for cost based rentals is much higher than in Urban areas. This implies that a higher cost based rental is likely for rural areas when detailed calculations are done subsequently. Moreover, the downward adjustment in the access deficit due to surplus on local calls will also be on the lower side in rural areas. These factors taken together, imply a much larger access deficit per subscriber in Rural areas as compared to that in Urban areas.

2.8 Thus in the ADC context, the criteria of Rural subscriber base has to be seen not merely in terms of Urban/ Rural *per se,* but the implications of the distribution of Rural/ Urban subscribers for both Revenues and Costs involved in estimating ADC. The above mentioned reasons, suggest that Service Providers with large Rural presence will have higher justification for ADC as compared to those providing Services in Urban/ Semi-urban areas.

2.9 If suggestions made earlier by various Service Providers that ADC be provided only for Rural Fixed telephone lines are to be considered, it will call for the calculation of cost based rental for covering Urban and Rural lines separately.

2.10 At present CAPEX and OPEX details based on Urban and Rural Classification is not readily available either in the Balance Sheets of the Service Providers or in their Accounting Separation Reports submitted to the Authority on 31st December 2004 or later. For calculations of cost based rental for rural lines, additional data will be required for calculation of per line cost in Rural Areas (CAPEX as well as OPEX) whose availability is doubtful and, if available, authenticity may be hard to verify. Nevertheless, an attempt is being made for the additional data. In that scenario, models applicable for Rural and Urban Areas could be different as even a mix of ADC collection based on a percentage of revenue and also based on minutes could be applied.

B. Whether ADC should be Admissible to Non-BSNL Service Providers?

2.11 The Access Deficit compensation does not arise out of any legal right. It arises out of TRAI's consideration of smoothening the transition process during competition, i.e. providing support during the transition period when costs of access are not fully recovered from the revenues from access line monthly rentals under the existing tariff regime due to competition in the market and other factors.

2.12 The TRAI has maintained that the ADC is a depleting regime, and the Authority has been reviewing the ADC to keep reducing it as appropriate to maintain a smooth transition to a regime where the ADC would merge with the USO regime. The most important objective of the Authority in revising the ADC regime has been to reduce tariffs for consumers and to boost growth. Thus the Authority has always given a particular emphasis to provide a strong basis for further decrease in domestic prices and boosting subscriber growth.

2.13 In the last IUC calculations, the Authority had observed that the relevant ADC for non-BSNL operators was much lower, and in some cases, there was no ADC justification, as is shown by paragraphs 55 of the October 2003 IUC Regulation quoted below. This is also shown by paragraph 100 of the October 2003 IUC Regulation whose relevant text is quoted below, which also shows that some (i.e. not all) BSOs would require ADC, and that the ADC for operators other than BSNL is comparatively lower than for BSNL.

> *"55. <u>With this normation, a number of BSOs continue to have some access deficit, but it is much smaller than the amounts calculated for them on the basis of their cost data.</u> The Authority has noted that in certain cases, the costs have not been provided with the level of detail required to make the requisite estimates. The Authority has also noted that in a number of cases the BSOs have not met their roll-out obligations, particularly for VPTs that the old BSOs had to install….. In contrast, most of the rural DELs are provided by BSNL, which also provides connections to a relatively large number of low users. Further, in general if we consider the situation for other countries, the ADC is paid to the incumbent and not to new comers. At the same time, the Authority noted the point made by BSOs that they had been getting access deficit funding since the beginning under their license."*

> *"100. …. The Authority sought detailed information from the BSOs and the same was provided by most of them. The Authority considered this data and based on normated estimates (BSNL monthly rentals for private BSOs and BSNL costs for MTNL), <u>it found that some BSOs would require ADC</u>. A partial implementation of the ADC regime would however, be very difficult and may also generate regulatory incentives/disincentives which the Authority has addressed in another part of this review. The Authority*

also did not want to disturb the prevailing structure of the Regime at present, without introducing a larger change in methodology. The Authority has, therefore, decided to provide ADC for BSOs also, but the amount collected through ADC by them would in effect be lower than the proportionate ADC correspondingly received by BSNL."

2.14 The estimated ADC per fixed-line for operators other than BSNL, as quoted above is comparatively lower. Further as quoted in text of paragraph 100 above, for sustainability and proper implementation of the regime, the ADC regime was specified for all operators at that stage. ADC collections from these Operators in the period February 2004 to January 2005 are far in excess of Rs. 550 crores as contained in 29th October 2003 Regulation. The last ADC regime was imposing a larger burden on the consumers and there was, therefore a need to revise the regime quickly so that consumers are not denied due benefit and operators do not obtain undue benefit at the cost of consumers.

2.15 Most of the non-BSNL Operators are operating in lucrative segments of the telecom market in the country, and have higher monthly general rental tariff as compared to BSNL where rentals are Rs.50, Rs.100, Rs.180 and Rs.250 for different areas serviced by BSNL. The average monthly rental of BSNL is Rs.156. Likewise the cost based rentals also differ. These differences in the costs and revenues for rentals have important implications for access deficit, which cannot be overlooked.

2.16 The Authority had with it the consolidated accounts of a number of operators by September 2004, and separated accounts of a number of operators by end of 2004. With an established framework of analysis, the Authority is able to quickly process the separated accounts also. We discuss below, the specific case of MTNL as an illustration.

2.17 Based on the Balance Sheet information, the Authority assessed the cost based rentals in comparison to average rental revenue for various operators (Paragraphs 43 and 45 of Explanatory Memorandum to the 6th January, 2005 Regulation). As an illustration based on Balance Sheet and the accounting separation reports (received by the Authority on 31st December, 2004), the estimated cost based monthly rental for MTNL is Rs. 263 per month for 2003-2004. Since MTNL gets Rs. 250 per subscriber from monthly rental, the difference is only Rs. 13 per subscriber per month. The accounting separation report of MTNL is being treated as a confidential document, and the data and the calculations as such are not being included in the Consultation Paper.

2.18 The above estimates are based on MTNL data for 2003-2004. For at least two reasons, the above estimated ADC amount of Rs. 13 (Rs. 263 – Rs. 250) per fixed subscriber of MTNL would need to be further adjusted downwards, in line with the methodology for estimating ADC (see for example, the elements for calculating ADC shown in Table 7 of the Explanatory Memorandum to 29th October, 2003 Regulation). One, is the reduction in the net surplus of the operator on local calls: MTNL's separated accounts show that its net profit rate on Local calls is exceptionally high. Two, the ADC decreases over time due to a reduction in cost based rental. (Paragraphs 26 and 31 of Explanatory Memorandum to the 6th January, 2005 Regulation)

2.19 TRAI is already in the process of reviewing Accounting Separation Reports submitted by various Service Providers.

2.20 Taking the above factors into account, the ADC for non-BSNL lines is likely to be much lower from the level in Oct 29 2003 IUC Regulation. For the period of 2005-2006 the ADC amount may become negligible or even nil. In fact, if the correction for surplus on local calls is made on the same basis as for BSNL, the ADC would be Nil for many of the Service Providers.

2.21 If the final calculations confirm 'NIL' or requirement of very low ADC values, continuation of ADC even from Originating Calls would lead to undue profits for non-BSNL Operators. In fact it was in this background that in the Explanatory Memorandum of the 6th January 2005 Regulation, the Authority has allowed the ADC amounts for BSNL to be different, i.e. higher, than those for other Basic Service Operators. Paragraphs 10 to 12, Table 3, Paragraphs 41 to 46 of the IUC Regulation provide further details. The Table referred above further shows that a relatively large share of BSNL subscribers are in rural areas, which has relatively lower revenues and higher costs on account of Rural coverage as compared to all other fixed line Service Providers. Adequate reasons for treating BSNL differently in terms of ADC per subscriber exist based on reasonable grounds.

2.22 In fact even MTNL and AUSPI in their submissions in the last ADC Consultation Paper of June 2004 had stated that there is a basis for treating rural DELs differently for the purpose of ADC. AUSPI in fact, in its comments agrees even to, <u>only</u> BSNL and no other operator getting ADC provided the ADC is given only for rural DELs. In addition, MTNL's comments also state that use of wireline in comparison to wireless for fixed service could be used for distinguishing among operators for the purpose of ADC.

(a) <u>MTNL's comments</u>

> "*As mentioned in Question No.1 there are new entrants in telecom field who are vertically integrated service providers operating with modern networks and lower costs and subsequently have low maintenance cost of their network. Moreover with shift to UASL, new entrants do not have any roll out obligations, where MTNL has already done so. In this regard ADC funding may be provided to operators:-*

1. Who have roll outs in rural area or

2. Who are incumbents providing services through copper network."

(b) *<u>AUSPI's comments</u>*

"If ADC is to be given to BSNL only, then it is the strong view of AUSPI that this should be for their rural lines only which can be drawn out of the existing revenue share including USO contribution. ……… Therefore, ADC is justified only on cost minus operators which are in a regulated tariff market which is only in the rural areas today."

2.23 The current consultation paper, in line with paragraph 47 of the 6th January 2005 IUC Regulation, is taking up for public consultation, a new IUC (ADC) Regime which could result in fundamental alterations in the ADC regime, including how to implement a sustainable regime if it is found on the basis of the detailed examination of the separated accounts that some or all operators other than BSNL should not get any ADC.

2.24 The new regime notified on 6th January 2005 had not made any fundamental alterations in the ADC Regime and was based on forecast minutes because estimates based on traffic prior to the implementation period tend to give higher than appropriate ADC charges in a situation when subscriber base and total traffic is increasing. In such a regime, which is based on forecast traffic for the period of implementation, it is appropriate to put the regime in place if adequate basis is available to the Regulator. Adequate basis was available with the Authority for the changes made. Once the regime is in place, it is reasonable to compare the forecasts with actual minutes to see if any adjustments are needed.

2.25 Another factor to be borne in mind is that the cost based rental tends to decline overtime, both due to a decrease in capital costs per subscriber as well as due to depreciation. Therefore, the decrease in cost based rental over time will also imply a decrease in ADC per subscriber in subsequent years, e.g. in 2005-06 in comparison to 2002-03 or 2003-04.

C. Whether ADC should be Admissible for Wireless Access?

2.26 For ADC purpose, presently calls to/ from WLL(F) are being treated similar to calls to/ from fixed lines. TRAI received complaint from a certain Operator Association which stated that *"Fixed wireless services being provided by the FSPs/ UASL's are classified as fixed services and thus entitled to ADC. However these services are for all intents and purposes tantamount to full cellular services and can be offered seamlessly throughout the service area. This creates a non-level playing field and competitively disadvantages the cellular operator vis-à-vis the fixed wireless service provider."* The Authority has very recently asked all Service Providers that FWTs should provide services to the subscriber at the fixed address only, the intention being that these phones should not be in a position to offer mobility through other Base Stations located in other parts of the city. Service needs to be locked to a particular RF Sector of a base station, otherwise issues of ADC and comparison with Limited or full mobility takes place.

2.27 The WLL(F) or wireless connections account for a large portion of the total subscriber base of private operators, and have contributed predominantly to their subscriber increase. In December, 2004 WLL(F) was 66% of their total subscriber base, and between October, 2003 and December, 2004 has accounted for about 82% of the increase in the fixed subscriber lines of these operators. The Table in this Chapter in Section A above also may be referred in this regard.

2.28 With respect to criterion of wire-line/ wire-less connections, in terms of the relevant ADC costs and revenues, Para 42 of the Explanatory Memorandum of 6th January 2005 Regulation is relevant and is reproduced below:

<u>Para 42</u>

The first criteria is linked to the fact that ADC funds have been provided to fixed line service providers to cover the shortfall in revenues for access (i.e. the deficit), and in a situation of incomplete tariff re-balancing, sustain the service even with intense competition in the long distance market. The Authority recalled in this context that either due to the Regulator or the Government, an upper limit was imposed on the fixed line rental charged by BSNL, and the other fixed line service providers were also constrained since BSNL has been the market leader in this regard. Consequently an access deficit arises because the revenues from rental charged are much below the cost based rental, with the latter being calculated based on the capital cost for the local call portion of the network (please see the Regulations of 24th January and 29th October, 2003 for more detail). A major portion, i.e. about three-fifths of the cost base for estimating the cost based rental is accounted for by the capital expenditure in the last mile portion of the network. Thus, when fixed line service providers give last mile connections through radio, there is a major decrease in the capital costs for the last mile, and hence in the overall costs used to calculate the cost based rental. In this regard, the Authority does not agree with the point that consumer equipment cost should be included for estimating overall Access Deficit."

2.29 The relevant cost for estimating the cost based rentals is much lower for a wireless system in comparison to wire-line systems. This can be seen, for example, from the cost based rental of Rs.200 per month which was specified by the Authority for WLL with limited mobility in Section II of the Telecommunication Tariff (Twenty Second Amendment) Order 2002 (6 of 2002) dtd.4th July, 2002. The Authority has data on costs for wireless systems submitted to it in the context of its tariff review as well as tariff approvals, and the cost based rentals estimated from these submissions show that it would be reasonable to consider cost based rentals for wireless systems to be between the range of Rs.140 to Rs.200 per month per subscriber, with the lower estimate being applicable to the most efficient operator.

2.30 Further, the comments received from some service providers during the Consultation process to the TRAI had suggested that wireless lines should be treated differently for ADC purposes because they involve lower costs than wire-line connections.

2.31 Since there would be no access deficit if the monthly rental revenue per subscriber is above the cost based monthly rental, it can be seen that, with the above mentioned cost based rentals for wireless systems there would be no access deficit or the access deficit per subscriber would be very small for such systems. As mentioned above, the average monthly rental revenue for BSNL, with a substantial subscriber base in rural areas, is around Rs. 156 per subscriber. The other operators which are predominantly working in areas with higher rentals have generally higher average monthly rentals, ranging upto Rs.250 per subscriber. A comparison with reasonable cost based rentals for the wireless system would show virtually negligible access deficit for lines provided through wireless systems.

2.32 In the context of Admissibility of ADC on WLL(F), relevant paragraph from the explanatory memorandum of 6th January 2005 Regulation is reproduced bel

Para 46

The Authority did consider whether the other fixed line operators should not be provided any ADC at all, but reached the conclusion that till some method is implemented for distinguishing calls to/ from WLL(F) from other fixed lines, it is important that for maintaining the sustainability of the ADC regime the "other fixed line operators" should continue to retain the relevant ADC charge for their outgoing calls. The Authority will soon conduct a review of the regime and then consider any further changes that may be required in the regime.

2.33 For distinguishing calls to/ from WLL(F) from other fixed lines TRAI may request Numbering Plan Administrator to allot different levels for WLL(F) as they have already done in case of WLL(M).

Questions from Chapter 2 for Consultation

All responses may kindly give reasons for the response

2.1 Should the ADC funding be provided only to BSNL or also to other Fixed Service Providers?

2.2 In case the ADC is to be provided only to BSNL, should it be provided based on its Rural Costs for its Rural Fixed lines i.e. areas where the tariffs are being regulated, or for all other lines including urban lines based on average costs i.e. covering all fixed lines where the rentals and call charges are below cost.

2.3 In case the ADC is to be provided to other Fixed Service Providers also, should the same criteria as discussed in Question 2.2 above be applied in their case also?

2.4 Would it be reasonable to consider not funding the ADC for other Fixed Service Providers but at the same time not charging them for ADC also? Please give reasons for your response?

2.5 While working out the admissibility of ADC, what should be the weight-ages for factors like fixed lines in Urban/ Rural areas provided through Wire-line/ Wireless access?

2.6 Whether ADC should be given for WLL(F) lines? Should any distinction be made between Rural and Urban WLL (F) lines?

2.7 If ADC is to be given for WLL (F) lines, what criteria should be determined with regard to the range of portability/mobility of WLL (F)'s subscriber terminal and the specifications of the subscriber terminal so that clear distinction can be made between WLL (F) and WLL (M)/ Mobile services?

2.8 Can we give a higher weight-age for ADC purposes for the fixed wire-lines that are operational in areas where tariffs are regulated?

2.9 Whether ADC should be worked out based on the cost data of incumbent only or most efficient operator’s data for fixed wire-line should be used?

Chapter 3

ADC as percentage of Revenue

3.1 Paragraph 50 to 54 of the 6th January 2005 IUC Regulation explains in detail, why the revenue share regime was not implemented. A number of anomalies and implementation difficulties were reported. However the Authority is still open for fresh Consultation on this issue and as such a series of Questions are included for Consultation after the relevant paras of the 6th January 2005 IUC Regulation are considered. The references made in the IUC Regulation in this regard are reproduced below for ready reference:

Should the revised ADC regime move to Revenue Share Regime ?

Para 50

> *In its assessment of whether it is appropriate to move at present to a revenue share ADC, the Authority took note in particular of the comment that such a transition could create problems of adverse impact on local call tariffs. Currently a large component of ADC is collected from the revenues of the International and National Long Distance calls. In order to maintain the same quantum of ADC receipts to BSNL and other Access Providers in a uniform revenue share regime, the contribution of International and National Long Distance traffic revenues will fall and that of local calls will increase which will impact local call tariffs upward. For the other possibility of unequal revenue share for different segments of the traffic, it was found that much more information on traffic and revenue generated and its separation in the accounts of various service providers is necessary, which is currently not available. The Authority has also*

taken note of BSNL's submission dated 14th July 2004 wherein it had stated that

"The impact of changeover from call based ADC to revenue share based ADC on long distance call revenue has not been considered by the regulator. For example, currently the IUC compliant NLD tariff is minimum Rs. 2.50 and ADC component of this is Rs. 0.80. This represents ADC as 32% of the revenue. In case the ADC is prescribed as percentage of revenue, this 32% share cannot be maintained and as per TRAI's own calculation and may fall down to 2% to 5%. This will amount to a free fall in the long distance tariff. In case the tariff for this segment falls by 25% to 30%, the entire surplus in the sector will vanish. This surplus has been effectively used in the past for financing the growth of telecom sector by BSNL. This will not only affect the BSNL's capability to expand the telecom network but will also adversely affect all other access providers."

The Authority has further noted that since the charges for shorter distance calls in general are higher for mobile, and these operators have additional sources of revenues from value added and supplementary services, they have greater flexibility than fixed service providers for adjusting to a situation when the present regime for ADC is changed to a revenue share regime. An important factor in this context is also that even though the Authority has given tariff forbearance with respect to urban monthly rentals and local call charges, the incumbent operator is not really in a position to take advantage of such flexibility because of the limits imposed by the Government on its rental and local call charge for reasons of affordability and social objectives.

Para 51

In moving to the ADC regime based on revenue share, a crucial factor is the large transition that would be required if the ADC amount charged per minute for the international calls is converted into a revenue share. At present, this amount is Rs. 4.25 per minute. The transition will become easier if the corresponding ADC per minute amount is lower and can be distributed more easily on a larger base of minutes and revenues that will generate ADC funds. Over time, this will become possible as the increase in subscriber base results in much larger number of minutes that generate the ADC funds, and as the ADC amounts themselves decrease due to the reasons mentioned in the previous section. This would help us to avoid the "large transition" that would be presently required, and the Authority could consider moving to a revenue share regime with the ADC per minute charge for ILD calls being substantially below the Rs.4.25 presently in place.

Para 52

The Authority also noted that further unbundled Network Element data would be required to fully address the matter of allocation of common costs etc. to different services provided by any service provider, with primary focus on the incumbent. Such information would be important to determine the relevant revenue share. In this context, implementation of Accounting Separation by the Service Providers including BSNL is a positive signal. Of course, one possibility when there is paucity of adequate information is to decide an appropriate ADC amount, with any residual amount being notionally covered by the fact that the Authority is increasingly introducing Forward Looking Long Run Incremental Costs (FLLRIC) for estimating ADC, and has also decided that the ADC will be *progressively decreased to be phased out in a few years time. Nonetheless, it would be useful to obtain more updated and detailed unbundled network element costing data for an exercise which would facilitate making a transition to a new methodology for collecting/ disseminating the ADC.*

Para 53

. *With respect to the point that USO has been implemented as Revenue Share and hence, it should be possible to also introduce ADC as Revenue Share, the Authority noted that the USO regime is designed to re-allocate a portion of the current License Fee Revenue Share for the USO funds. Thus, with USO there is no additional funding involved, only re-allocation of the existing funds. In the case of ADC, additional funding is involved and all the points mentioned above with respect to Revenue Share become relevant.*

Para 54

The Authority, therefore, decided that it would not presently implement ADC Regime as a percentage of Revenue Share. It would continue with the Per Minute Charge based regime".

3.2 A number of issues arise in implementing Revenue Share for ADC. These include, for example, <u>which services should contribute to ADC as Revenue Share? Should these services be identical to those on which Revenue Share License Fee is charged? If Revenue share ADC regime is to be implemented and ADC is to be given to more than one operator, which criteria should be used to decide such an allocation?</u>

3.3 Another possibility to consider is whether a combination of per minute charge and some form of Revenue Share can be combined, thus covering also newly expanding Revenue Sources such as SMS, MMS, IN Services, Broadband services, value added services, ISPs etc. for funding of ADC.

3.4 The Authority has noted in its 6th January 2005 Regulation that if USO funding is increased, the amount of ADC will decrease. However, the disbursement of USO funds collected as 5% Revenue Share Licensed Fee is yet to be fully operationalised. An important point would be to consider whether the USO funds (i.e. 5% Revenue Share License Fee) should be, considered for estimating the residual ADC amount even if the funds collected are not disbursed. Otherwise, the consumer would in effect be paying twice for the same purpose. Alternatively since rural services are to be funded from USO Funds, should the ADC regime focus only on the ADC that is not taken care of by the USO funds collected.

Questions from Chapter 3 for Consultation

3.1 With the substantial reductions in the ADC for international incoming /outgoing calls and in certain categories of domestic long distance calls as well as introduction of uniformity in ADC on domestic calls, do you feel the time has come for smooth transition for imposition of ADC on the basis of percentage of adjusted gross revenue of the operators?

3.2 What are the probable pros and cons of switching over to ADC regime based on revenue share? Also suggest as to who should be the recipient(s) of the ADC collected on revenue share basis?

3.3 If the answer to 3.1 is no, specify the period by which the existing per minute based ADC regime could be switched over to revenue share regime with reasons.

3.4 If Revenue Share regime for ADC is to be implemented, whether the percentages could be different for long distance and International long distance calls especially Incoming ILD calls?

3.5 What could be other alternate options, say a fixed monthly ADC charge on all non-Rural lines covering all subscribers, please comment clearly taking account of any likely adverse effects?

3.6 What could be a reasonable period by which ADC Regime could be part of USO Regime?

3.7 In case ADC is to be recovered as a percentage of Revenue, should it cover all type of services including ISPs, or should it exempt certain operators like niche operators or ISPs with annual revenue collections upto a defined threshold value?

3.8 What other possibilities should be considered for funding ADC? Please answer with specific reference to the points raised in main paragraphs 3.2 to 3.4 of the Chapter, including the manner in which USO funds collected but not disbursed should be treated in estimation of ADC amount.

Chapter 4

INTERCONNECTION USAGE CHARGES

A. NEW IUC CALCULATIONs

4.1 In the revised ADC regime under notification dated 6th January 2005, the Authority has paved the way for working towards "death of distance" by specifying similar ADC charges for all domestic distance slabs of ADC funding traffic categories. The next step towards the death of distance could be to prescribe same carriage charges for all distance slabs. This would facilitate simplified Interconnection arrangements in Multi-Operator Multi-Service Scenario. Need for multiple Circuit Groups would also be not required. This will bring in efficiency and reduction in Interconnection Capacity requirements and also cost economies.

4.2 The existing carriage charges as prescribed in Schedule II of the IUC Regulation dated 29.10.2003 are as follows:-

a) Carriage charges for Long Distance calls within India

TableI

(Amount in Rupees per minute)

	Distance slab			
Carriage charges per minute for Long Distance calls within India	***Below 50 Kms***	***50 – 200 Kms***	***200 –500 Kms***	***Above 500 Kms***
	0.20	***0.65***	***0.90***	***1.10***

The service providers are allowed to negotiate a spot value within +/ - 10% of the long distance calls carriage charge beyond 50 Kms.

Other relevant paragraphs of the Regulation dated 29.10.2003 are as follows:

Para 82

The cost based charges for long distance carriage have been calculated as Rs. 0.21, Rs. 0.65, Rs. 0.85 and Rs. 0.94 per minute corresponding to distance slabs of 0 to 50Kms, 50+ to 200 Kms, 200+ to 500 Kms and above 500 KMs respectively. These costs have been calculated based on data for BSNL, which is an integrated operator. The costs relevant for stand alone operators would be higher. The carriage charges in the IUC regime have been therefore specified as slightly higher amounts for the last two distance categories: they are about 10% higher for the second highest distance category and about 20% higher for the highest distance category.

4.3 Since BSNL and other integrated operators have already submitted their Accounting Separation Reports and Traffic Minutes data is already available with the Authority, the carriage charges can be determined after taking into account the cost of various Network Elements as reported by Service Providers.

4.4 With much higher subscriber base and resultant Minutes, Termination Charges which presently are 30P per minute also could see a downward shift. OPEX data and minutes data mainly from BSNL and other Service Providers would be used for this part of the exercise.

4.5 The Authority would be using a methodology that is similar to the one that was used in TRAI's IUC Regulation of 29th October 2003 for calculation of carriage and other IUC elements.

Data for IUC/ ADC Calculations

4.6 The IUC/ ADC exercise will utilise the large database with TRAI, including the periodically updated information collected through :

- Formats prescribed by TRAI for monthly traffic data collected for the period 1.2.2004 onwards from APs, NLDOs and ILDOs.
- Audited Balance sheet of APs, NLDOs, and ILDOs for the period ending 31.3.2004.
- Accounting Separation Data from all APs, NLDOs and ILDOs.
- Revenue data separately for each license area received by TRAI at Quarterly Intervals.
- ADC collection as reported for Inter-network traffic at monthly intervals from February 2004 onwards.
- Distribution of Rural subscribers into various Rental slabs for BSNL.
- Other data as required.

4.7 As many of the Service Providers are not measuring minutes for Intra-Network (Intra-Circle) traffic, such minutes and thereby internal ADC collections are not available. BSNL and other operators shall be required to measure and report all such minutes and collections to TRAI.

4.8 The Authority has already constituted an Expert Group to suggest Formats and procedures so that cases of Traffic Under-reporting do not take place. It is understood that already first set of Formats for ILD traffic prepared by the Expert Group are under circulation and discussion. Based on the recommendations of the Expert Group, additional traffic details may also be available for IUC and ADC calculations.

B. Differential Termination Charges for ILD Traffic

4.9 Whether Access Providers should be allowed to negotiate termination charge with ILDO has been discussed in para 70 to 76 of the 6th January 2005 Regulation, which are reproduced below for ready reference. In this context, the Authority also notes that recently, BSNL has submitted that since roaming subscribers, particularly International roamers, are charged high amounts by the mobile operators, there is a valid case for the network which terminates a call, e.g. fixed network of BSNL, to share a portion of this high call charge revenue. This issue is open for consultation.

Para 70

> *"A proposition was made by BSNL and later supported by COAI that on incoming international calls the rate could be reduced but the Access Providers be permitted to negotiate the termination charges with the ILDOs. The Authority took account of all the points made in favour and against allowing the access provider to negotiate the termination charge with ILDOs. The Authority considered ITU-T Recommendation D-140 and its subsequent information notes, and discussed the matter with relevant ITU experts also. It was noted that these documents provided ceilings for the rates negotiated between the ILDOs of two countries, akin to a settlement rate. To begin with, it was clarified with BSNL that it was not seeking for negotiations being allowed between the ILDOs of two countries. Such negotiations already take place. Rather, BSNL as Access Provider is seeking the possibility of negotiating with the ILDOs which bring international calls to India, so as to obtain a larger amount as termination charge from those operators.*

Para 71

The Authority recalled the situation a few years ago, when such negotiation was allowed and the uncertainty and dispute that had marked the market at that time. In this context, the Authority noted that the moment the negotiation process becomes a dispute, which is likely, the prevailing legal framework is such that the Authority will not be in a position to take steps to address the matter. This will imply lack of certainty and increased possibility of discord in the market, which possibility may get further enhanced as BSNL has already entered the market as an ILDO itself.

Para 72

For incoming calls, since the end user is specified by the number on which the call comes, the access provider effectively has a monopoly position. In such a situation, the Authority is of the view that there is a major likelihood of the dominant operator exercising undue advantage through the negotiation process. ***The Authority further noted that allowing negotiations would permit a reduction of the ADC charge on international calls, but the total arbitrage margin would still remain high due to an increase in the termination amount retained by the access provider.*** *As explained earlier, the lower ADC on international charge would result in a correspondingly higher ADC charge for the domestic calls, making them more expensive. The Authority also noted that BSNL was already being provided adequate funding for ADC and there was a USO regime in place for funding investment in rural and other net cost areas. Hence additional funding through negotiations would have certain adverse effects and would be over and above the amounts already being provided. The Authority noted that these points were relevant also* *in the context of the submission made by BSNL with respect to the ceiling given in ITU-T Recommendation D-140 and its information notes.*

Para 73

The Authority then considered in detail BSNL's submission that mobile termination charge in other countries was much higher than in India, and that in particular in Italy these charges were being increased. It is evident, as shown for example from Table 1 given earlier, that compared to India, these higher termination charges (which are also similar or same as the domestic mobile termination charges), result in much higher tariffs for the mobile service in these countries. The tariffs for India are substantially below the levels for these countries, and in fact in Table 1, they emerge as the lowest among the countries covered there. Moreover, the minutes of use by Indian customers are relatively high compared to the other countries. A major reason for this situation is the effort by the Authority to devise a regime which results in low domestic tariffs, and also paves the way for convergence that is approaching fast. In addition, the Authority has checked further on some of the specific points made by BSNL about the termination charges increasing, and there is evidence which contradicts these submissions.

Para 74

The Authority then examined the argument that if mobile operators received higher termination charges from ILDOs, they would have greater incentive to curb the grey market traffic. The Authority recalled that under the DOT letter of 23rd June 2003, mobile operators had already been directed to monitor and take requisite measures, in co-ordination with DOT's Vigilance Department, to address the illegal international traffic.

The present argument appeared to suggest that the mobile operators should be paid an incentive in order to follow the aforesaid Direction from DOT. This argument cannot be accepted by the Authority. In fact, as BSNL has strongly stated in a related context that monitoring and penalty are adequate for addressing grey traffic, such monitoring and penalty should also be effectively put in place for the mobile operators. It is incorrect to pick and discard one's principles and factual positions depending on which objectives they meet in specific cases. Moreover, the Authority has examined the proposition further and it does not appear that the incentive so provided to mobile operators will effectively address grey traffic as such.

<u>Para 75</u>

In this background, allowing BSNL or any other access provider to negotiate termination charges with ILDOs would not be appropriate. ***The Authority foresees the reduction in the arbitrage margin along with better monitoring and vigilant action, to result in growth of international long distance calls through the legal channels.*** *The Authority has taken note of the fact that reduction in Mobile tariffs and decrease in excise duties on Mobile handsets has led to a major increase in the demand for mobile segment. The Authority will keep a close watch on the developments and hopes that reduction in ADC rates will bring in more minutes through licensed ILDOs.*

<u>Para 76</u>

The Authority did, however, consider that as part of its next Consultation process ,it would later consider whether to use a differential (and even flexible) termination charge as a regulatory policy tool within a framework *which included the objectives of higher domestic growth and addressing international grey market traffic."*

Questions from Chapter 4 for Consultation

4.1 a) Should the carriage charges be made identical for all intra/ inter-circle calls?

b) Alternately, should there be an option of distance based carriage charge or identical value being left open for negotiation by NLDOs and Access Providers?

c) What would be the likely impact of the change, if any, on the tariffs?

4.2 Should there be forbearance on carriage charges? If yes, should it be with ceiling or without ceiling?

4.3 Whether the termination charges on international incoming calls should be left to Access Providers to be negotiated with the ILDOs? If yes, should the Regulator prescribe a ceiling.

4.4 Should there be any differences in the termination charges for Domestic and International Long Distance calls?

4.5 Whether there should be different termination charges for mobile and fixed line calls. In case charges are different, whether differential termination charges be allowed for Rural Lines?

4.6 Should Revenue Share on Roaming charges be allowed for Roaming calls, both National and International or only on International call?