

Dated: January 20, 2011  
Airtel/TRAI/2010-11



To

**The Secretary,  
The Telecom Regulatory Authority of India  
Mahanagar Door Sanchar Bhawan  
Jawahar Lal Nehru Marg (Old Minto Road)  
New Delhi-110002**

Kind Attention: **Shri Arvind Kumar , Advisor (I & FN)**

**Subject:** Pre- Consultation Review of Interconnection Usage Charges

**Ref:** No. 409-9/2010 – I & FN dated 24-12-2010

Dear Sir,

This is with reference to the TRAI Pre-Consultation Paper on the subject matter. In this regard, kindly find enclosed our response for your kind consideration.

Yours Sincerely,

**For Bharti Airtel Limited**

A handwritten signature in blue ink, appearing to read 'R. Gandhi', is written over a blue horizontal line.

**Ravi .P. Gandhi**  
**Vice President- Corporate Regulatory**

Encl: Bharti Airtel response on **“TRAI Pre-Consultation Paper on “Review of Interconnection Usage Charges”**

**Bharti Airtel Response to TRAI Pre Consultation Paper on Review of Interconnection Usage Charge**

At the outset, we welcome Authority's initiative to start the Consultation process on Interconnection usage charges and expect it to be completed at the earliest. While the Authority takes it forward by issuing the consultation paper with the relevant questions, as a prelude we would like to submit as follows:-

- i) The Consultation process should consider all the cost elements as mentioned/deliberated in the TDSAT Judgment dated Sep 29, 2010 i.e. Operational, and Capital Costs
- ii) As the authority aims to determination of charges for various components of IUC i.e. Termination Charge, Carriage, Transit etc we also recommend the Authority to regulate the other equally important IUC related charges viz. Port charges, Media Charges, Collocation charges etc simultaneously. Since, each leg of interconnectivity has significant cost and has direct impact on the consumer tariff, it is essential that each cost of connectivity is deliberated in the consultation paper
- iii) We expect the framework for the Consultation Paper will be designed in consonance with the principles set in the above mentioned TDSAT Judgment and should be of the nature to foster fair compensation for the cost incurred by the operator while also encouraging competition and growth of telecom infrastructure in the country.
- iv) The review of the IUC regime must favorably consider the principles enunciated by TDSAT, :
  - ✓ **Determination of termination charges to be Cost based and on work done principle. Hence, the same must to above zero (No Bill and Keep)**

*"..... various components of IUC namely, Origination charge, carriage charge and termination charge must be held to be the established principle of cost based determination therefor....." - (114 (12))*
  - ✓ **Capital costs must be included in calculations.**

*"It is not in controversy that cost would include CAPEX/OPEX and depreciation ....." - (114 (12))*
  - ✓ **Interconnection Charges determined by the Authority must be sustainable in the long run.**

*"TRAI was therefore required to consider that all the operators must offer the call charges to its customers which would be sustainable in the long run ...." - (114(12))*
  - ✓ **IUC must be conducive to future investment, especially in rural and difficult terrains**

*"It was its duty to adopt such principle which would be conducive for investment in future and in particular in rural and hilly areas." - (101(5))*

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- ✓ **New operator should not be given any undue privileges or subsidization**

*"We are also unable to agree with the submission of Mr. Vaidyanathan, that interest of new comers would be the principal ground to adopt a methodology for determination of inter-operator charges. Policy decisions, in our opinion, in this behalf should be clear and explicit." - (101(10))*

- v) During the review, the Authority must also factor that the cost of provisioning of telephony is likely to go up significantly following the increased cost of compliances such as:-
- Implementation of Mobile Number Portability (MNP);
  - Revised UCC Regulation;
  - Subscriber verification;
  - Compliance to guidelines related to EMF Radiations compliances.
  - The Compliance to the equipment security clearances.

Apart from the above, regulatory cost has also significantly increased such as;

- Increase in spectrum charges
- Increase in Microwave Access & Backbone charges
- Local taxes and rising inflation costs

The cost based IUC is also very important due to the fact that there is substantial traffic imbalance between the operators and any below cost IUC may result in cross-subsidizing the operations of one operator by the other operator.

Thus it is imperative that the IUC should be determined keeping the above factors in mind and this would not only help in fair compensation to the interconnecting operators but will also encourage the investment for expansion of telecom services especially in rural areas

In light of the above our Preliminary submission is as follows:-

- 1. What should be the framework of Interconnection Usage Charges that meets the requirement of today as well as takes care of future developments like deployment of Wi- Max, High Speed Packet Access (HSPA), Fixed Mobile Convergence (FMC) and Next Generation Network (NGN)?**

**Bharti Airtel Response:**

We believe that the existing framework of IUC is fine and should be allowed to continue. The technologies such as Wi- Max, HSPA, and FMC are at the nascent stage and it will take time for the said technologies to stabilize. Also, the requirement of IUC has not been felt as there negligible exchange of P2P calls and messages between the subscriber



of the two operators. Hence it would be premature to decide any IUC framework for these deployments at this stage. As far as the NGN is concerned, it is just a technology platform, and we believe that the operators have already deployed NGN which is working fine within the existing framework of IUC.

2. **What components of IUC for Voice, SMS and any other value added services should be reviewed? What should be the level of Charge for each component that requires review? Please give detailed justification/ reasons to support your viewpoint.**

**Bharti Airtel Response:**

We strongly believe that all the Interconnection Usage Charges needs to be reviewed within the overall framework laid down by the Hon'ble TDSAT. With regard to the various components of IUC to be reviewed, our submission is as follows:-

**I. Voice:**

The Interconnect Usage Charge (IUC) for Voice consists of the following components:

- a) Termination Charge
  - b) Carriage charge
  - c) TAX Transit charge
  - d) Transit Carriage charge between LDCA to SDCA
  - e) Origination Charge
- a) **Termination Charge** - While deriving the termination Charge (both for Fixed & Mobile), TRAI during the last IUC exercise had considered only the Relevant OPEX. The Authority has not taken into account various costs including CAPEX, Depreciation & Amortization, Sales & Marketing cost, Return on Capital Employed with an argument that the same may be recovered using the rental & origination charge.

The argument relied upon by TRAI during the last IUC review was not correct as the major chunk of the customers is prepaid where there is no rental charged from the customers. So, the operators have no ways and means to recover the CAPEX and other elements of OPEX such as Sales & Marketing cost. Keeping this in view, it is therefore necessary that the CAPEX and other components of OPEX left out during the last exercise must be included to arrive at a final termination charge. A nominal Return on Capital employed shall also be included while deriving the final termination charges.

We also propose that the charges for termination of calls onto mobile and fix line networks should not be asymmetrical as the same would force the service providers to raise the tariffs for calls terminating onto fix line network of other operators and hence would discourage the subscribers from calling onto fix line numbers. Such a situation, keeping in view that a large number of fixed line phone are fully substitutable with mobile phones, may lead to a drastic change

in the usage pattern of the subscribers wherein they will prefer calling mobile numbers as against a fix line number. Such a scenario will be detrimental for the subsistence of fix line business which is already under intense competitive pressure from large number of mobile operators and would ultimately lead to large scale churning of the fix line customers in favour of mobile phone. So, we request the Authority to keep uniform termination rates for both fix line and mobile to foster growth and sustainability in the fix line business.

- b) **Carriage Charge** - With regard to Carriage charge, the prevailing market rates are below ceiling of Rs 0.65 per minute. With 29 NLDO licenses and more than 10 operational NLDOs providing the carriage services, we believe that there is a sufficient competition in the market and the ceiling of 65 p is working fine. Thus, in our view there does not exist a need to review Carriage Charge.
- c) **TAX (Level-I) Transit Charge** - The Transit charges requires consideration on the following aspects:
- ✓ Non applicability of charges where BSNL is unable to provide POI demanded by the operator.
  - ✓ To ensure parity, private operators should also be allowed to provide the transit services inclusive of termination to BSNL's network. This will bring competition between BSNL and other NLD/Access Provider by providing a free choice to the originating operator to either use BSNL L -I TAX or alternatively choose other operator to terminate the call on BSNL Mobile/Fixed network.
  - ✓ It should be cost based in case the operator is required to take the services of BSNL or any other operator.
- d) **Transit Carriage charge between LDCA to SDCA** -As per the present IUC regime, the terminating operator is entitled to the Termination Charge for calls terminating in its network. The regime envisages the principle that the originating network has the choice to either directly terminate the call in to the terminating network or route the call via the carrier operator for further termination into the terminating network.

However, as a blatant deviation to the above principle, BSNL has declared their L-II TAX as the terminating point for the calls originating from other mobile network to meant for termination to their fixed line network. So having declared L-II TAX as terminating point, ideally, it should be the responsibility of BSNL to carry the call further to the terminating SDCA without any additional charges. However, with a sole motive to further their interest, BSNL had been consistently charging it under the disguise of transit carriage charge which is grossly wrong because of the following reasons:

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- ✓ They do not provide POI at SDCA and declare their LDCA TAX as the only point of termination.
- ✓ The originating operator i.e. the Mobile operator is denied the rightful flexibility to choose the carrier which leads to mandatory carriage charges payable to BSNL and is also onerous on the originating access operator .

So in our view, TRAI should regulate this element by either directing BSNL to provide connectivity at all termination point or BSNL should bear the cost of carriage within its own network i.e. from declared point of termination (L-II TAX) to the actual point of termination (SDCA Switch).

However, if the operator opts to terminate the call at L-II TAX of BSNL instead of SDCA, BSNL may be allowed to charge the carriage charges but the said charges must be strictly cost based and to be determined by TRAI.

In case if BSNL is unable to provide the POI at SDCA due to any technical reason, they should allow carriage of calls by any other NLD/Access provider with whom they have already established the POI at SDCA level.

- e) **Origination Charge** - Origination charge is presently under forbearance allowing flexibility to the operators to roll out different tariffs to attract diverse segments of the subscriber base. Since the market forces are working well and has let to exponential growth of the telecom sector by the way of provisioning of the service at affordable tariffs. So we are of the view that there is no need of regulating the Origination charge.

## II. SMS:

The SMS termination charge is very important to avoid the abuse of the network of terminating operators by the way of bulk and free SMS sold by the originating operators. So, we suggest TRAI to fix a termination charge which acts a deterrent against any such abuse of the network of one service provider by the other service provider.

Thus, we request the Authority that a termination charge for SMS should be prescribed at a level, which can successfully address the concerns of spam and junk SMSs over the network.

## III. Video Call

With the launch of 3G Service, the operators are also likely to launch the inter-operator Video Calling. So, there is a need to determine the Interconnection Usage Charges for Video Call. The video call, like voice call, consists of the following:

- a) Termination Charge

- b) Carriage Charge
- c) Origination Charge

It is suggested that the existing framework of Interconnection Usage Charges may also be extended to Video Call termination wherein the Authority may determine the terminating and carriage charges leaving the origination charges under forbearance.

Technically the Video call utilizes approximately 4-5 times the resources/ bandwidth as compared to a normal voice call. It is therefore suggested that the Authority may accordingly determine the charges for Video Calls as four times the charges determined in case of a voice call considering the fact that the consumption of the network resources is 4 times than the resources consumed for voice call.

#### IV. Incoming ILD Termination Charge:

On this issue, the Hon'ble TDSAT has advised TRAI to reconsider the existing regime to maintain level playing field between foreign & Indian operators.

- ✓ The Indian Access Providers are at huge disadvantageous situation vis-à-vis the foreign operators due to the fact that the foreign operators charges almost 8-10 times higher than the Indian termination charges of Rs. 0.40/- fixed by TRAI during the last review of IUC.
- ✓ At present India is a net importer of international traffic, with an Incoming to Outgoing ratio of which is as high as 4 to 1 i.e. for every minute of an outgoing call, we receive a call of 4 minutes. With such a high ratio in the favor of India, the country should earn precious foreign exchange from other countries for incoming ILD traffic. However, on the contrary the Indian Operators in India are net payers of foreign exchange. This is because while the average cost of sending the traffic ranges between 8 - 10 US cents, on the contrary our termination charge for incoming ILD calls has been fixed by the Authority at only 0.9 US cents ( Rs. 0.40) and settlement price is approximately 1.3 - 1.4 US Cent . As a result, India is a net payer in term of actual flow of money even though we receive more traffic.
- ✓ It is estimated that in FY 2009-10, India received approx 28 Bn Mins of international incoming traffic while it sent out 6.2 Bn Mins of outgoing international traffic. Despite receiving additional 22 Bn Mins of international traffic, India would have ended up paying (net of incoming revenue) about \$150 - \$200 Mn to foreign operators.

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- ✓ Thus, the increase in Termination Charges on incoming international calls in line with the charges payable for termination in foreign countries is highly warranted. This will ensure a win-win proposition for all the parties as it will result into:
- Saving & earning of precious foreign exchange for the country.
  - Higher earnings to the Government/exchequer on account of high licence fee & other increased Government levies.
  - Additional funds for creation of rural infrastructure and an enabler to provide affordable tariffs to Indian subscribers.

In light of the above, we request the Authority fix higher termination rates for incoming international calls in line with the charges payable for termination in foreign countries.

V. Other components to be considered/reviewed in forthcoming IUC Review:

a) **Port Charges, Media Charges and Colocation Charges:**

Port Charges, Media Charges and Colocation Charges are the CAPEX Costs associated with the Interconnection Usage Charge. As, per the TDSAT judgment, the CAPEX costs are to be considered while determining the Interconnection Usage Charge. Thus, there is a need to review and mandate that there are no extra charges on account of the port charges, media charges and the collocation charges as the costs accruing to same would have already been included in the Interconnection Usage Charges determined by the Authority.

- b) In order to address the issues of these charges, we recommend that the Authority should re-examine the provisions of RIO regulations as the Interconnection Charges and IUC are interrelated. It is also crucial as more than 10 years have elapsed since the last review of interconnection connectivity was done.

- c) We recommend that the charges corresponding to the Port, Co-location, rack charges etc. are merged in the Termination Charge since the IUC will already include the Capital Expenditure. This will not only simplify the entire interconnection regime but shall also ensure level playing field between various operators.

3. Which of the following approach/methodology should be used for estimating Interconnection Usage Charge:

- Existing Fully Allocated Cost methodology used by TRAI or any variation in it;
- FLRIC or any other variant;
- Bill and Keep;
- Left to forbearance all components of Interconnection Usage Charges;





e. Any other methodology.

**Bharti Airtel Response:**

Before deliberating on the approach/Methodology for estimating IUC, we humbly submit that all cost elements including but not limited to the following should be captured in any methodology being considered by the Authority to determine the cost of termination:-

Capex Costs for the following Network elements:

- a. Core Network - HLR ,GMSC ,MSC, STP, BSC, IN ( SDP and SCP), SMSC
- b. Radio Network -BTS, Microwave Hops,
- c. Backhaul - OFC for Inter-node connectivity ( Transmission ) , Redundancy through Ring protection
- d. Infrastructure costs
- e. Associated IT Capex
- f. Operating Expenses

The Authority should also take into account all **operating costs** including but not limited to deliberated below for arriving at a fair and correct representation of the costs incurred for setting up and operating a Mobile network:

- I. Network running costs – Site running costs ( Rent , Energy , Security , Rates and Taxes ,Repairs & Maintenance, AMC charges , MSC running expenses , Managed Service charges, PCM charges, Signaling charges, Stores and spares consumption, Site relocation and handling charges, Warehouse rent, Insurance charges , etc.)
- II. IT costs – Costs on IT based activities that are directly attributable to running a mobile network such as billing, etc should be incorporated.
- III. Personnel and Administration costs – Personnel and Administration costs directly attributable to administering a network including allied services should be built in.
- IV. License Fees and Spectrum Charges – The annual charges to the P&L by the operator with respect to License Fees and Spectrum charges paid as part of the Revenue share should be included to capture the costs that are attributable for setting up and operating the mobile telecom network.
- V. Depreciation and Amortization Charges – The annual depreciation charges directly attributable and allocable to fixed assets and the annual amortization of License Fees (as part of one time Entry Charges) for setting up and

operating the mobile telecom network should be captured in the costing model.

- VI. Sales & Marketing (S&M) Cost: Sales and marketing cost should be considered while deriving the call termination charges. It has to be kept in mind that Sales and marketing cost has the direct bearing on the number of subscribers & their behavior and hence leads to imbalance in traffic. S&M also helps the operator in customer retention and increase of MOUs. TRAI is also aware that, the bulk of the customer base today is prepaid and hence there is no alternate means to recover the cost incurred on S&M. It is therefore essential to include S&M costs while calculating termination charges.
- VII. Cost of Capital – A fair return on the capital invested by the operator should also be considered in the costing model. The return should be based on Weighted Average Cost of Capital on the capital employed by the operator, to ensure that adequate protection is given to the operator on his investments.
- VIII. Bad Debts – Bad Debts are also required to be included while arriving at the termination charges as it is a normal cost attached to doing a business. The same is also ascertained by the Authority itself in the petition filed in the AGR matter *“The Authority noted that bad debts is a normal cost attached to the business and is also one of the standard items of expenditure in the profit and loss account. These costs are part of the business and such risks including recovery of such costs is built in the tariff structure. Therefore inherent possibility of its occurrence is part of the business model.....”*. Hence, costs on account of Bad Debts also need to be included.
- IX. SIM Card Utilization - SIM card is essential component of network costs and thus costs on account of same need to be included
- X. Bank Charges - Bank charges also need to be considered as it is a normal cost attached to doing a business.

Further, we would like to take the liberty to state that the approach followed by the Authority during the last IUC exercise was not in sync with the guiding principles specified by the Hon'ble TDSAT. It is therefore most respectfully submitted that the Fully Allocated Cost methodology followed by the Authority based on Accounting Separation Reports (ASR) needs to be suitably modified to include all costs such as capital costs along with adequate return on capital employed.

4. Explain the approach/costing methodology adopted, provide the model, if any , developed for estimating the level of each component of IUC for voice, SMS & any

other value added services with all calculation sheets. Give justification for adopting the proposed approach/methodology. Also provide details of revenue, minutes of Usage (MOU) (off -net/ on net), CAPEX and OPEX corresponding to each network element, cables etc. separately for your network.

5. Provide Cost and revenue corresponding to each service like Voice service, SMS, GPRS, EDGE, roaming services and any other value added services. Also provide cost and revenue for interconnecting services like terminating call, originating call, terminating SMS and originating SMS. All cost and revenue data may be cross referenced with the accounting separating report submitted to TRAI.
6. Justification as to why the model proposed by you should be used for determination of Interconnection Usage Charges for voice calls , SMSs and any other value added services.

**Bharti Airtel Response:**

- In its recent judgment, the Hon'ble TDSAT has advised TRAI to review the termination charge based on the premise that the current charge does not take into account the cost of CAPEX.
- The said judgment has also observed that the termination charge should be investor friendly. This observation is very important as old & committed operators are expanding their networks in rural areas and now their >60% net additions comes from rural areas only. A cost based termination charge will further accelerate the investment in rural areas.
- Furthermore, the Hon'ble TDSAT has also observed that the operators must offer call charges to its customers which are sustainable in the long run. As rural / lower income subscribers behavior indicates that the trend of incoming calls is more than the outgoing trend, the revenue potential from these customers comes predominantly from inbound calls (i.e. by way of termination charge) than outbound calls. Such a phenomenon is not just limited to rural areas but there are millions of low usage customers in metros and other cities for which the number of incoming calls is much more than their out going calls.
- The last IUC review was done at the time of entry of new operators in the telecom arena and with the premise that the entry of new operators shall culminate into enhanced coverage or competition in rural areas. Unfortunately, the expected coverage and competition in rural areas has not happened. Rather the new operators continued their focus and coverage in the urban areas and going by the rollout trends of the past two years, they are likely to continue expanding their coverage in

the urban areas only. Whereas on the contrary, the old operators had been expanding their coverage in the rural areas. The numbers of subscribers added by such operators in the last few years substantiate the same. As the rural penetration of telecom services is likely to be continuously driven by the old operators like Airtel, we would request the Authority to keep this in mind while arriving to the termination charge.

- **Thus, we request that all the cost elements related to CAPEX, OPEX and Common Cost as recognized by international regulators and submitted by us should be considered by TRAI in the forthcoming IUC exercise.**
- As far as submission of cost & revenue data of various services, we would like to respectfully submit that we are in the process of collecting the same and will submit the same to the Authority shortly.

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