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To,

**Shri Raj Pal**  
Advisor ( F & EA)  
Telecom Regulatory Authority of India,  
Mahanagar Door Sanchar Bhawan,  
J.L. Nehru Marg, (Old Minto Road),  
New Delhi - 110 002

**Sub: Pre-Consultation Paper on Review of Tariff for National Roaming**

**Ref: TRAI Consultation Paper No. 17/2012, dated 20.12.2012**

Dear Sir,

This is with reference to your above mentioned Consultation Paper. In this regard, please find enclosed our response for your kind consideration.

Thanking you.

Yours Sincerely

**For Bharti Airtel Limited**

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

**Ravi Gandhi**  
**Sr. Vice President**  
**Head - Regulatory Policy**  
**India & South Asia**  
**Encl : As Above**

## **Bharti Airtel's response to TRAI Pre- Consultation Paper on Review of Tariff for National Roaming**

We understand from the pre-consultation paper that the Authority has deemed it necessary to undertake an exercise to review the framework of national roaming tariffs. As per the Pre Consultation paper two aspects seem to emerge from the exercise:

- a) **Review of Ceiling Tariffs Prescribed by TRAI in 2007**
- b) **Removal of Roaming Charges.**

The aim of the exercise vis a vis the above points is not clearly understood.

Any exercise carried to review the tariffs should consider various elements of input costs that have increased for operators. A detailed exercise should be transparently carried out to discuss the escalation increase in various costs for operators and their inclusion in the costing exercise.

Any exercise to remove charges on national roaming should consider the most important facet that Licenses have been allocated Service Area wise and Service wise i.e, 22 UASLs in LSAs for access, NLD and ILD licenses for carriage (Long Distance Domestic and International). In case of UASLs the cost structures for each service area differs from LSA to LSA for the following reasons:

- o Entry Fee for Spectrum as per the recently held auctions.
- o Spectrum Usage Charges differ LSA wise based on current holding.
- o Network laying costs differ. i.e. plain areas have a different network outlay and cost compared with hilly and difficult terrain.
- o ROW charges have sharply increased and they differ from LSA to LSA.
- o The Network Utilization is different for different operators/circles.

We therefore believe that the impetus provided for a review needs to include the aspects such as higher cost of spectrum resources, imposition of regulatory charges and charges related to security requirements which all form a part of substantial cost increases for operators. We hope that the Authority will consider our response from the perspective of reviewing the ceiling for national roaming tariffs with a view to remove such a ceiling allowing operators to recover all costs including returns from roaming services offered to customers.

**Our Para-wise Response to the Pre Consultation Paper is below:**

**(i) Should the present cost based approach for determining tariffs for national roaming continue?**

**(ii) In case your response to issue (i) is in the affirmative, what cost components should be included in the determination of such charges? You may also comment on the information sought by TRAI from the service providers in the proforma placed at Annexure.**

**(iii) In case your response to issue (i) is in the negative, what should be the alternative approach for determining tariff for national roaming? Please support your view with a detailed methodology.**

**Bharti Airtel Response:**

The costs of provisioning of telecom services has increased substantially since the last review of roaming tariffs which was carried out in the year 2006-07. There are various direct and indirect costs that have increased due to inflationary and regulatory driven factors.

- The Cost of Spectrum has increased 7-8 times in '2012 compared with the earlier market determined entry fee in '2001. These charges now will form a substantial part of an operators costs to provide services.
- The input factor cost has also increased in the past 5 years like Energy – power & Electricity, Diesel Fuel, Cost of Manpower, Site Rentals. Maintenance of Equipment – Radio and Core.
- IT costs have gone up substantially due to additional database storage requirements owing to high usage volumes, security requirements.
- Cost of Security wherein additional deployments are required to fulfill the needs of Security agencies.
- Increase in Regulatory Compliance charges which include additional deployments due to security, compliance, new developments like MNP.
- Potential increase in Capex to lay new infrastructure and replacement costs.

A detailed exercise should be conducted to allow the inclusion of all these escalations in costs in the final tariff review through a consultative and transparent process.

Some of the cost components that may be considered are:

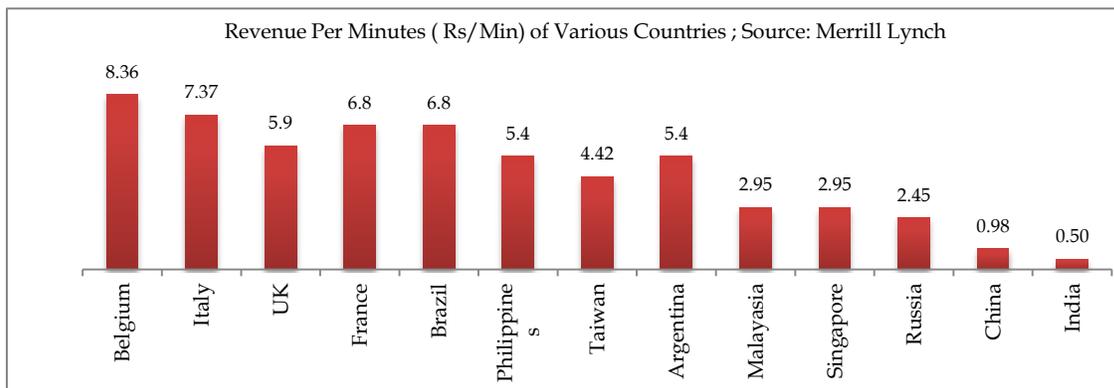
- IUC for Termination Charge for outgoing Local and National Long Distance calls while roaming nationally.
- Carriage Charges of upto 65 paise for “Outgoing Calls” National Long Distance calls while roaming nationally.
- Carriage Charges of upto 65 paise for “Incoming Calls” while roaming nationally.
- SMS termination charges for incoming and outgoing SMS while roaming nationally.
- Carriage Charge (SCCP) for national SMS charges for receiving SMS's while roaming nationally should be allowed.
- CAPEX and OPEX of all network components, IT infrastructure.

We have already made submissions of cost details in the prescribed format as desired by the Authority. However, the additional items listed in 4 and 5 above were not part of the prescribed format and should be included for consideration of the review.

**Further, the tariff elements when reviewed should consider allowing for charging of fixed charges from customers as pack/monthly fixed charge in tariff plan and additional Inter-operator charges applicable.**

**Notwithstanding with our suggestion on the costing methodology, we strongly believe that the existing cost based approach for National Roaming tariffs with a **prescribed ceiling should be removed and tariffs forborne for national roaming services for the following reasons:-****

The telecom sector in India has witnessed the exponential growth during last 13 years where number of subscribers have increased from 1.2 million in 1999 to over 920 million (approx) by end of Nov 2012. One of the key factors responsible for this growth is the policy of forbearance of tariffs adopted by TRAI.



The general tariffs since they were under forbearance provided the flexibility to operators to offer tariffs as per consumer needs and requirements. This allowed the telecom services to grow in subscribers' numbers, usage and revenue. Operators had the flexibility to offer tariffs to match the needs and usage of subscribers vide innovative tariff plans, Special Tariff Vouchers, Combo Plans etc. This was a very major contributor to the growth in uptake of telecom services.

The current tariff ceiling for roaming tariffs implemented since 15<sup>th</sup> February 2007 vide 44<sup>th</sup> Tariff Order Amendment to TTO '99, has taken away the flexibility of providing need and usage based roaming tariffs to customers. Even, fixed charge packs were not allowed in the period which has taken away the innovative tariff offerings from the market.

We suggest that the roaming tariff under the prevalent hyper competitive market condition should continue to be kept under the time tested policy of forbearance. This is also important from the fact that any regulation or cap on the tariff would not only adversely affect the operators' ability to introduce innovative tariff plans to cater to the need of various segments but will also result in limited choices to the consumer. Therefore, we suggest the Authority to

do away with the cap on roaming tariffs, which is deterrent in providing innovative tariffs plans to the roaming customers.

**(iv) In your opinion, should the burden of the cost for the incoming call be removed from the roaming subscriber? If yes, how should this cost be recovered? Would removal of the burden of the cost for the incoming call while roaming lead to an increase in overall call traffic across the country?**

**Bharti Airtel's response:**

At present in-roamers pay for the cost of incoming calls. However, the roaming subscribers have the option to choose which calls they may answer, since the calling party number is clearly visible to the called roaming subscriber.

National roaming is a service that has small percentage of subscribers and there is definitive cost of Inter Circle Mobility which is applicable by way of Roaming Tariffs. Since, the Called Party while roaming nationally has the option to receive only those calls, for which it wants to pay, therefore we believe that the cost of incoming calls should continue to be borne by the Roaming Party. This is logical since the entire flexibility of receiving the calls is with the roaming subscriber and as such any subscriber who is able to travel from other states/circles/LSAs has ability to afford the inter-circle carriage charge. Any attempt to remove this charge would necessarily force the home network to bear the cost of such roaming and pass this cost to the non roaming customer by the way of tariff increase leading to cross subsidization.

The key issues that would require detailed analyses in consultation:

**Cost burden of incoming calls in case the charge is not paid by the called party:** The present arrangement in which the called party pays principle in roaming is necessary because the calling party pays only for that leg of the call which starts from the location of calling party and ends in the home location of the called party (since the calling party does not know that the called party is roaming). The second leg of the call i.e. from the home location of the called party to the visited location of the called party (in-roamer) is paid for by the in-roamer should continue. If this leg of the call is not paid by the in-roamer there will be serious financial consequences for the providers of roaming services who nevertheless will have to pay for the carriage of the second leg of the call to NLDOS.

- **Cross subsidization-** The operators will be compelled to spread the cost to the entire customer base which will result in the ordinary customer, **who does not roam, pay for the roaming customer.**
- To make for the loss of revenue on account of removal of incoming charge, the operators will be compelled to re-balance all tariffs. This will also lead to an artificial arbitrage between incoming roaming and STD charges.

Further to the impact mentioned above, it is likely that the customer of one circle will carry the SIM cards to the other circle to avoid STD charges and take advantage of the arbitrage created

due to difference in roaming charge and STD Charge. This may pose a potential security risk which needs a detailed examination.

**(v) In your opinion, if the difference between the tariff while roaming and the tariff in the home network is done away with, how would such an arrangement operate within the framework of the present licensing regime? What are the likely issues that may arise upon its implementation?**

**Bharti Airtel's response:**

Any exercise to remove charges on national roaming should consider the most important facet that Licenses have been allocated Service Area wise and Service wise i.e, 22 UASLs in LSAs for access, NLD and ILD licenses for carriage (Long Distance Domestic and International). In case of UASLs the cost structures for each service area differs from LSA to LSA for the following reasons:

- Entry Fee for Spectrum as per the recently held auctions.
- Spectrum Usage Charges differ LSA wise based on current holding.
- Network laying costs differ. i.e, Coastal areas have a different network outlay and cost compared with hilly and difficult terrain.
- ROW charges have sharply increased and they differ from LSA to LSA.
- Regulatory Charges have increased.

There are several key issues which also need to be kept in mind while initiating a review of ceiling on Roaming tariffs. Some of these issues are listed as below:

• **Increased Cost Burden vis a vis current Spectrum Entry Price**

- The licenses continue to be LSA wise. And accordingly Spectrum Charges - Entry Fee and Spectrum Usage charges differ from one circle to another. As per the recent developments the cost gap has widened between circles tremendously.
- The reserve price of spectrum was recently increased in '2012, by about 7-8 times the market determined price of spectrum in 2001 in the recent auction of 1800 MHz band. The recurring spectrum usage charge too has been increased on the total spectrum holding of GSM operators, despite the high entry charge for acquiring spectrum.
- The disparity in the Entry Fee for Spectrum between the years 2001 and 2012 ranges from 2 times in one LSA to over 100 times in another LSA. This wide disparity would lead to the **advent of differentiated tariff offerings in different LSAs, which may be the emerging market scenario. Hence, there may not exist any pan India tariffs due to this disparity hence, home tariffs cannot be envisaged in visited**

**roaming networks.** The difference in the current spectrum charges and the entry fee charged for a license in 2001 is enclosed as Annexure 1.

- **Differential Spectrum Charges Across Circles Remain a Concern:** While the government has moved towards a uniform license fee regime, however the challenges posed by the variable spectrum charges across circles still remain. The spectrum charges currently vary by circle since the allocation is also different across different circles and operators. Since it is unlikely that the spectrum allocation can be made in a uniform manner in the near term at least, hence this would mean that operators continue to maintain separate accounts and interconnection settlements at individual circles levels, a move which frustrates the whole purpose of the removal of national roaming concept.

Cost Arbitrage between circles may lead to a flow of revenues from one circle to another. Tariffs may differ from circle to circle, any potential reduction in roaming charges or any potential action to align home tariffs with roaming tariffs may result in a retail - subscriber coordinated illegal moving of subscribers from one LSA to another. A low tariff in any one LSA would easily be operated in another LSA. This will give rise to a potential security threat as well.

- **Cross Subsidization:**
  - **Service subsidization-** Instead of recovering the cost of roaming from the actual user, the operators will be required to spread it to the entire customer base which will result in the ordinary customer, who does not roam, pay for the more affluent roaming customer.
  - **Cross Subsidization amongst the circles:**
    - A clear arbitrage in costs exist between one circle to another with the introduction of 7-8 times higher spectrum charges compared with entry fee in the year 2001. This LSA to LSA difference in spectrum prices in the year 2012 too is 77 times between the lowest priced and the highest priced circles.
    - Home tariffs in roamed location with a zero charge for incoming calls would result in cross subsidization of costs imposed by an affluent roaming subscriber on other subscribers in other circles. A low home tariff in a low cost circle may not be sustainable for any operator in a high cost LSA.
    - Due to a wide variation of the spectrum cost amongst LSAs, the customers of "C circles" would end up subsidizing the customers of Metro/A-Circle Viz Orissa (Reserve price for 1800 MHz band is 81 Cr) with low spectrum price will yield a lower calling tariff whereas an Orissa subscriber roaming in Delhi ( Reserve price for 1800 MHz band - 1941 Cr) will have to pay prices adjusted

for the phenomenally high spectrum price. Moreover, as can be seen from annexure 1 (enclosed) there is a sharp rise in Spectrum charges in 2012 compared with charges for licenses inclusive of spectrum in 2001.

- **Cost burden of incoming calls in case of National Roaming:** At present in-roamers pay for the cost of incoming calls. The called party principle in roaming is necessary because the calling party pays only for that leg of the call which starts from the location of calling party and ends in the home location of the called party (the calling party does not know that the called party is roaming). The second leg of the call i.e. from the home location of the called party to the visited location of the called party (in-roamer) is paid for by the in-roamer. If this leg of the call is not paid by the in-roamer there will be serious financial consequences for the providers of roaming services who nevertheless will have to pay for the carriage of the second leg of the call to NLDOs. To recoup the loss of roaming revenues the operators will require a tariff re-balancing..
- **NLD Carriage Charges-** All Incoming calls on Roaming today are routed through an NLD license/network and entail a payout to a NLD operator (@ 65 p). This is the reason why incoming calls are not free while roaming nationally. This issue will not get resolved and access providers will have to perforce pay for the NLD network usage. This is the same reason why STD charges are different from local call charges. Customer tariffs should allow for operators to recover expenses on a cost plus basis for specific services extended to subscribers for the network to be a profitable enterprise to offer services with continuous improvements and innovation.
- **Incoming Roaming calls charges removal may lead to Zero STD charges:** A review of the prevailing ceiling on roaming charges will have to consider the tariffs prevailing for long distance calls. An undue reduction in the ceiling applicable on roaming charge or free roaming will create an artificial divide between STD and roaming calls, which is both destructive and discriminatory. Thus a Delhi subscriber calling to say, a Mumbai subscribes, will pay carriage /STD charges, but a Delhi subscriber roaming in Mumbai will pay no charges to receive incoming calls which involve the same cost of carriage. This will lead to a removal or reduction in the STD call charges as well putting an additional burden of costs on access and carriage service providers. This would be to the detriment of subscribers and service providers to offer a benefit to an already affluent roaming subscriber.
- **Removal of National Roaming would Mean Significant Changes in the Commercial Arrangements in the Industry:** With the doing away of national roaming, the 22 PLMNs currently in use would need to be merged into a single PLMN. The network layout and design would need to be re-modeled since this would have a significant impact on interconnection and call routing. This would imply not only additional investments at the individual operator levels, but also several rounds of discussions at industry level since all

agreements related to interconnection and call routing will now need to be re-negotiated between all the operators.

- **Inter-operator Roaming Agreement-** Due to differential cost structure it would become very difficult for the operators to negotiate the national roaming agreement especially when they have to offer the uniform tariffs. In some cases the cost of roaming may be higher than the tariff which the operator is offering/has to offer to meet the competition. And operators should have the flexibility to recover expenses on a cost plus basis.
- **Ability to respond to Competition-** The pan India operators loses the ability to respond to the lowering of tariff (say a new operator in Bihar) by a local operator in the that circle due to lower cost of that circle. Also, the single circle operators of the high cost circle (say an operator in Mumbai) cannot match the tariff of a pan India operator.
- **National Security Risk:** As per question iv) & v) of the Consultation Paper in case roaming tariffs are offered at home tariff rates without any incoming charges it will pose a threat to the National Security allowing free movement of SIMs between LSA . All the security norms established by the Licensor, DoT for verification of subscribers before activation of services would be vitiated incase miscreants use this avenue to avoid traceability in another LSA.

The above issues would need to be addressed in case the difference between home tariff and roaming tariff is done away with. The roaming tariffs and their impact on the overall consumer tariffs vis a vis the operators' financial health should be kept in mind before reviewing any such charges. It is therefore submitted that the roaming tariffs should be left to market forces and be forborne with the removal of specified ceiling charge on such services.

**(vi) In your opinion, is there a need to prescribe a tariff for video calls while roaming? If your answer is in the affirmative, what methodology should be adopted for calculation of such tariff? In case cost based tariffs are to be prescribed, the service providers may kindly provide the cost data and costing methodology to be used.**

**Bharti Airtel's Response:**

Video calling is at a very nascent stage in the Indian telecom sector. Thus, it would be too premature to prescribe any tariff for video calls. We believe that the tariffs for the video calling should be left to the market forces and let the competition decides the tariff.

**(vii) In your opinion, should TRAI also prescribe a tariff for SMS while roaming? If your response is in the affirmative, what method of calculation for such tariff should be adopted? In case cost based tariffs are to be prescribed, the service providers may kindly provide the cost data and costing methodology to be adopted.**

**Bharti Airtel's Response:**

- For all roaming calls and messages handled by the visited network, exchange of the signalling information with the home network is involved in the case of both prepaid and

post paid subscribers. Since the visiting network is not realising any fixed charges like rental etc. from the temporary subscribers roaming in its network, the usage charges have necessarily to be higher as compared to the charges for the SMS originated in the home network.

- Presently the additional cost of SMS has not been considered while fixing the ceiling tariffs for the incoming SMS to the national roaming subscriber. However, there are the cost components such as Termination charges, SCCP signalling carriage charges etc which need to be recovered from roaming subscribers.
- In the present market scenario, SMS termination charges are 10 paise for P2P and 15 paise for promotional SMS (Which includes a 10 paise Termination Charge). Also, SMS delivered for a roaming subscriber in the visited network is carried on a national backbone which requires to be compensated in addition to the termination charges payable to terminating subscriber. An incremental charge for roaming like in the case of voice calls is also applicable on SMS which should also be recoverable for the home / visited networks.
- TRAI specified 'nil' charges for **incoming SMS** in its 44<sup>th</sup> amendment to the TTO '99 specifying the ceiling roaming tariffs in the year 2007. However, at the time the Authority was of the view that this traffic is very low and cost figure for the same were not available. We have made substantial cost related representations and submissions to the Authority on SMS termination charges which should also be considered while embarking on a consultation exercise to review the national roaming tariffs. We are of the view that the roaming tariff ceilings should be removed and the roaming tariffs forborne.
- We therefore, firmly believe that the Authority should not prescribe any specific charges or ceiling charges for SMS originated/received by a customer while roaming in another operator's network and the same should be left to the market forces.

**(viii) In your opinion, would it be appropriate to allow special tariff vouchers for roaming subscribers?**

**Bharti Airtel's Response:**

- In the year FY 2006-2007 the TRAI determined that rentals should not be charged on roaming subscribers and thereby defined ceilings for national roaming call by call charges.
- The market dynamics has changed tremendously and the market has become very dynamic. There are various offers that operators are in a position to give to customers' basis fixed monthly tariffs but the Authority currently allows only call by call tariffs to be offered to customers. Operators may be given the option to provide the special Tariff Vouchers (STV) and Combo Vouchers for roaming subscribers. This will allow the flexibility to operators to offer innovative tariffs and discounts to customers based on their various dynamic usage patterns.

- Operators may also be allowed to provide STV and combo vouchers wherein a customer can avail free roaming services by paying upfront charges as fixed by the operators based on market dynamics.
- Further, the STV and Combo Voucher offerings to the roaming subscribers should be left to market forces and the subscriber's choice.

**(ix) Is there any other relevant issue related to 'tariff for national roaming' which the Authority should keep in mind while carrying out the proposed comprehensive review of the framework for tariff of national roaming services?**

**Bharti Airtel's Response:**

We have given detailed submissions above, which we hope the Authority will consider in-depth while conducting a detailed exercise on the issue.

## Annexure 1

Comparison between prices of CMTS licenses awarded post auction in the year 2001 with the auction determined and reserve price of Spectrum in 1800 MHz band in the year 2012

Service Area	CMTS Entry Fees in 2001 Validity 20 years (in Rs. Crs.)	5 MHz Spectrum for 20 years (in Rs. Crs) in 1800 MHz Band
A.P.	103.01	1,148.00
Assam	5.00	35.00
Bihar	10.00	186.00
Delhi	170.70	1,941.00
Gujarat	109.01	899.00
Haryana	21.46	186.00
H.P	1.10	31.00
J & K	2.00	25.00
Karnataka	206.83	924.00
Kerala	40.54	261.00
Kolkata	78.01	455.00
MP	17.45	216.00
Maharashtra	189.00	1,051.00
Mumbai	203.66	1,900.00
NE	2.00	35.00
Orissa	5.00	81.00
Punjab	151.75	269.00
Rajasthan	32.25	188.00
TN in CHN	233.00	1,224.00
UP (East)	45.25	305.00
UP(W)	30.55	430.00
WB	1.00	103.00
<b>Total</b>	<b>1,658.57</b>	<b>11,893.00</b>