Reliance Communications Limited (RCOM) Response to TRAI Consultation Paper on Interconnection Usage Charges (IUC)

Synopsis

Today, the Indian telecom markets have matured with most of the TSPs having a subscriber base of more than 100 Mn plus. The traffic patterns have transformed from being voice centric to data intensive and going forward, with GoI's initiatives such as 'Digital India', the trend is going to accentuate further. Undoubtedly, it's the mobile access that shall lay the path for greater adoption of data services.

Global competitive scenario for the comparable telecom markets, of the size of India, have seen similar migration from growth phase to maturity phase with a corresponding shift to data services adoption over voice services domination. Such markets have adopted **'Bill and Keep (BAK)'** as the model for deciding mobile termination charges since 5 years ago.

Most of the TSPs are in the second term of their license period and thus have already benefitted extensively with their investments in the first term of their license period. Thus, the principle of continued exploitation of the network assets utilization for revenue generation in handling, originating and termination of traffic does not arise. It is a well known fact that these players have significantly earned their revenues due to high MTC regime, despite the fact that the off-net to on-net traffic discrepancies have evened out and are nearly the same. Stipulating termination charges, in such a scenario, is akin to setting floor prices that impedes fixation of market driven tariff innovations. Termination charge, which is a wholesale charge between the operators, should not be the cost recovery mechanism as the same can be, and should be through retail subscriber tariffs. **Therefore, consistent with TRAIs informed and stated position, as per its affidavit submitted to the Hon'ble SC in 2011, <u>the Authority should implement BAK for domestic termination without further delay.</u>**

Executive Summary of our Response:

A. **In Consistent with TRAIs informed and stated position in Hon'ble SC, the Authority should implement BAK for domestic termination without further delay.**

B. **If TRAI believes that the market situation does not permit immediate adoption of BAK then a glide path of max. 6 -12 months may be recommended with immediate reduction in MTC/FTC based on <u>Pure LRIC (Avoidable Cost)</u> approach.**

C. **Straight Line Method (SLM) for calculation of depreciation for network elements is recommended since it divides depreciation expenses evenly over the life of the asset on a nominal and uniform basis.**

D. **We recommend Pre-tax WACC of 13%.**

E. **Model based on avoidable costs, such as Pure LRIC is considered more appropriate for prescribing Mobile Termination Charge and Fixed Termination Charge.**

F. **FAC method is not recommended for estimation of termination costs, as it takes into account the historical cost accounted in ASR, which invariably, inflates the termination cost many times.**

G. **CAPEX ideally should not be considered for MTC determination using FAC.**

H. **If at all FAC model is to be used for estimation of the termination cost then,**

   a. **Relevant OPEX, Depreciation (considering Relevant CAPEX) and ROCE 13% after deducting the revenue earned from rental(s) /activation/Recharge fees, VAS and other income(s) may be used.**

   b. **Utilization of a weighted average depreciation rate of 10% for all network elements without any salvage value for the purpose of depreciation is recommended.**

   c. **Relevant cost associated with the termination of voice call only should be included.**

I. **Spectrum being a component of CAPEX should not be included in MTC. Based on TRAIs calculation of 4p as being the impact of Spectrum on retail prices, it is felt that impact of spectrum cost on termination, based on the current recommended RP of 1800 MHz shall be approx 1p or less**.

J. **PURE LRIC is considered as the best model amongst all the variants of LRIC and is best suited for the estimation of termination charges till such time BAK is adopted by the Authority.**

K. **In the best interest of the consumer, it is ideal that MTC and FTC should be equated.**

L. **Authority's intervention is solicited to direct all operators to sign the agreement for implementation of the TRAI's regulation on calling cards.**

M. **TRAIs intervention for International Settlement rates is warranted.**

N. **International Settlement Rates should be cost based and on reciprocal treatment for the operators in other countries.**

O. **Uniform termination charges for ILD and domestic termination based on work done principles should be fixed.**

P. **If the Authority decides to keep asymmetric termination charges as at present for domestic and incoming international calls, then the additional amount charged over and above the domestic termination, should be divided in 60:40 ratio between ILD and access provider**.

Q. **Termination charges should not be discriminated on grounds of originating country / region.**

R. For determining carriage charges, the authority should continue to use bottom up costing methodology considering the reduced cost realities since last exercise of 2006 till date.

S. **Carriage charges firstly should be uniform across the country and should be left to forbearance and secondly, its ceiling should be revised to 40 p per minute.**

T. **There is an urgent need to either eliminate or stipulate the TAX transit & transit carriage to SDCA to just 2p per min.**

U. **BAK should also be adopted for SMS termination charges.**

PREFACE

1. Amply supported by the judicious policies and regulations of the Authority, the telecom sector, in the past two decades, has emerged as the harbinger of rapid economic progress of the country. The vision for telecom services, outlined by the GoI mandates not only proliferation but provisioning of affordable telecom services to the masses. It is to the Authority's credit that they had the foresight of such requirements, way back in 2009 itself, while stipulating the regulation of IUC.

2. Telecom services today are at the cusp of a digital revolution in India. This timely initiative of aligning the IUC, to the vision of GoI, has the potential to be the game changer for the country and the telecom industry at large. Before delving into the specifics of the questions posed in the consultation paper, we would like to highlight the twin aspects of (a) Why there is a need to review the MTC and (b) Why Bill & Keep is the best suited Regime for settlement of domestic termination?

3. **Why there is a need to review the MTC?**

   3.1 **Since 2009 IUC Exercise, MOUs Have Increased Significantly & Costs Have Reduced Extensively.** There has been an exponential growth in the wireless subscriber base (From 390 to 916 million) as well as the volume of traffic. Although there has been a significant improvement in network utilization, as is evident from the figure 1 below, but the industry has failed to exploit the consequent economies of scale which could have resulted in declining termination cost.

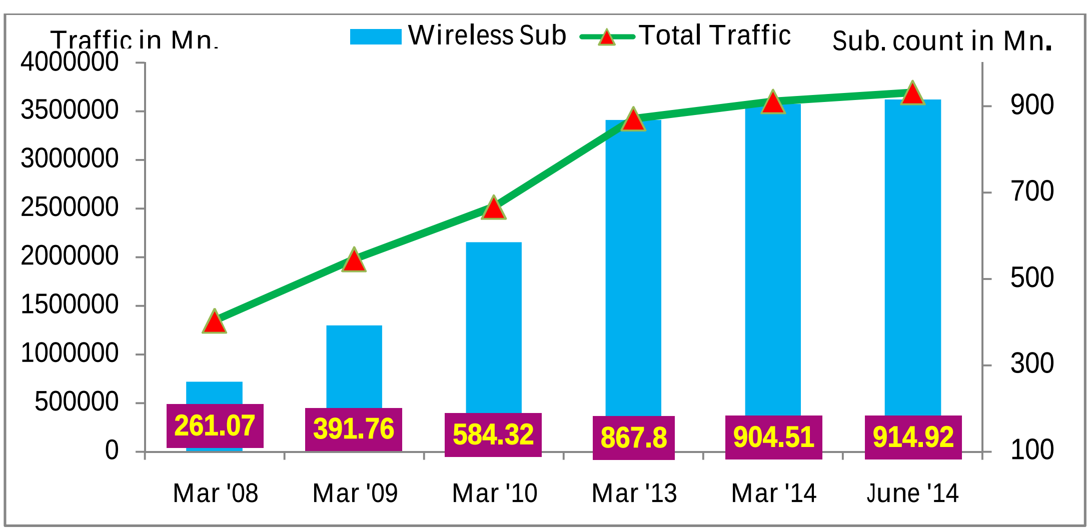

*FIGURE 1 : **SHOWING THE INCREASE IN SUBSCRIBER BASE AND VOLUME OF TRAFFIC, Source: TRAI PMR Report***

3.2 **The cost structure of operators has changed significantly over the past five years.**

3.2.1 Electronics costs are reducing 15% - 25% year-on-year for past five years.

3.2.2 Capacity available per MHz has increased significantly as operators have deployed latest techniques like half-duplex, AMR, multi-sector configuration etc.

3.2.3 Substantial increase in volume of data traffic including value added services, reducing the proportion of costs attributable to voice.

3.2.4 There is greater degree of infrastructure sharing between operators significantly reducing costs.

3.2.5 Migration to an all IP network scenario would substantially affect the network costs and the relationship between the cost of carrying traffic and distance over which traffic is carried.

3.3 **High Termination Charges Keep Retail Prices Artificially High.** Over the past five years, ARPM levels of the industry have reduced, from about Rs 0.56 per minute in 2010 to Rs. 0.5 per minute in 2014 (Figure 2 refers) but there has been no corresponding reduction in termination charges thereby depriving the user in availing the advantages of reduced tariffs. The current ARPM for RCOM is around Re 0.42 and therefore the termination charge, @ 20 paise, attributes almost 50% of the retail price. Thus, higher MTC is a major roadblock for further reduction in tariff from current levels.

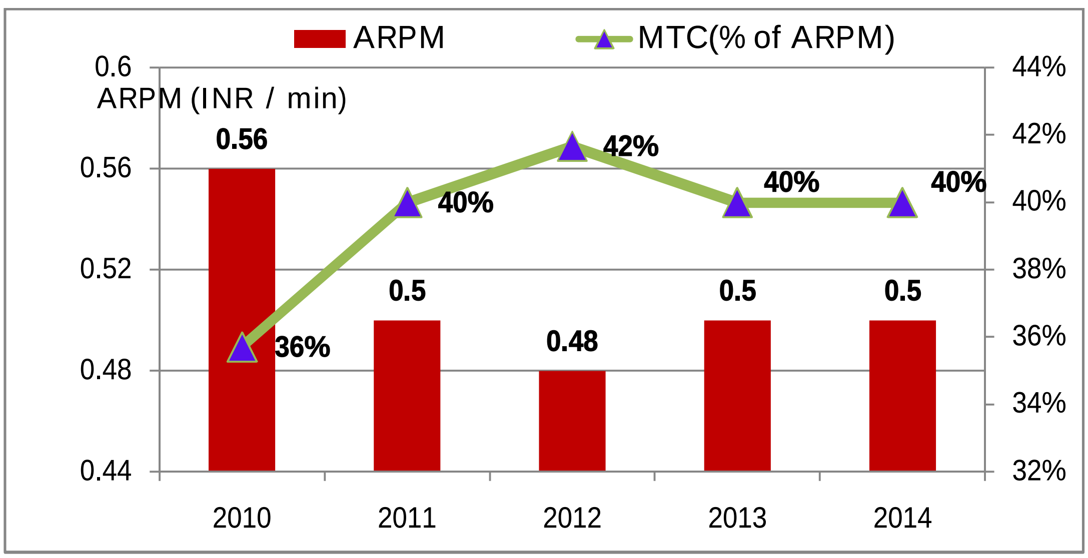

FIGURE 2 : SHOWING THE REDUCTION OF ARPM FROM 2010 TILL 2014, Source : TRAI PMR Report

3.4 **On-net and Off-net Tariff Differentiation.** A direct consequence of high MTC is the massive difference between on-net and off-net tariffs. Today, most of the established operators are offering huge discounts and attractive benefits to the consumers on their on–net calls leading to traffic imbalances and creation of a lopsided business case for the other operators who are unable to sustain through this price differential. The Graph at figure 3 below, clearly shows as to how the reduction in MTC effected through the 2009 regulations has narrowed the gap between off net and on net calls. Although in on-net calls there is double usage of the network for origination as well as termination but retail tariffs are retained at approx. 1/5th of the off-net calls. Also, the high on-net calls or reduced on-net tariffs imply that there is a adequate margin between actual termination costs and regulated MTC rate.

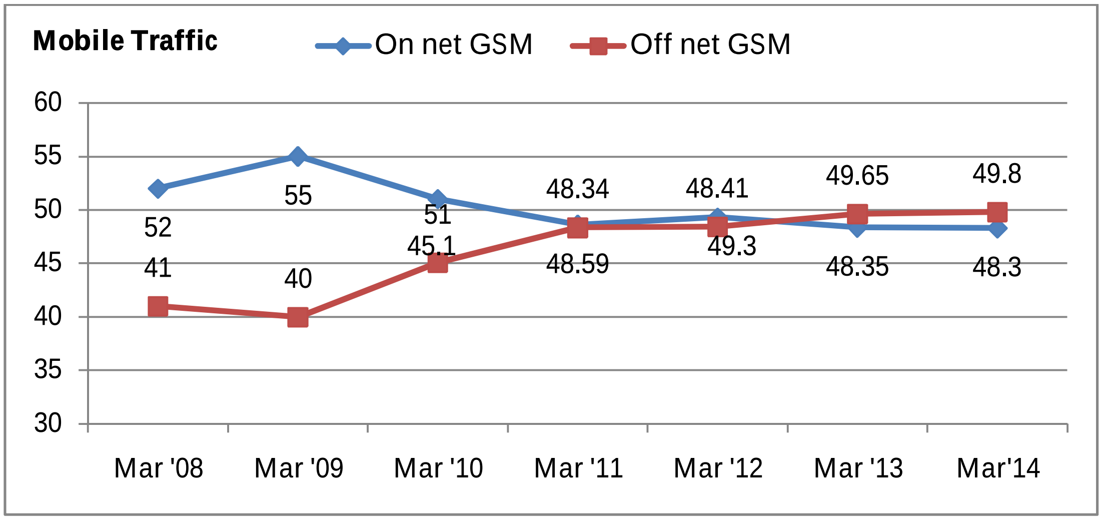

FIGURE 3 : SHOWING THE ON-NET & OFF-NET TRAFFIC PATTERN SINCE 2008 TILL 2014, Source: PMR

3.5 **Declining MTC Trends Globally.** Benchmarks from other countries clearly indicate that the MTC regime is reviewed every 2-3 years. Almost all the countries across the globe have registered a downward trend in MTC. The global average decrease in MTC has been of 50+% over past 4-5 years, as shown in the Figure 4 below.

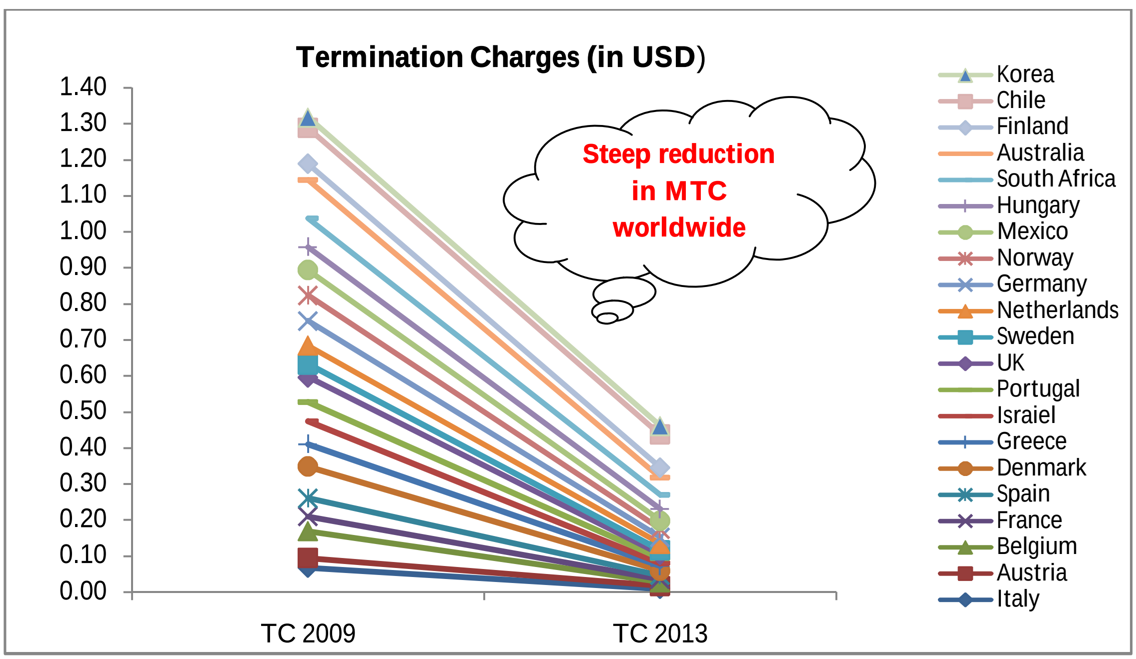

FIGURE 4 : SHOWING THE DECLINING TREND FOR MTC IN VARIOUS COUNTRIES, Source: ML GWM 2Q'14

3.6 **Conclusion.** The prevailing domestic termination rates @ 20 paisa, as per the IUC charges determined by TRAI in early 2009, prevent reflection of the changed dynamics of the Indian telecom market and are not in alignment with the international trends for MTC. It is apprehended that even a marginal reduction in MTC, from the existing levels, shall fall short of significantly impacting the retail tariffs, which is the need and expectation of the users. **Therefore, it is felt that there exists a strong case for the Authority to seize the opportunity of supporting the next phase of telecom revolution by introducing 'Bill & Keep' as the way forward for IUC (domestic termination) settlement.**

4. Why Bill & Keep (BAK) ?

4.1 **Fosters Cost Recoveries from Operations Rather than Competitors.** In the CPP regimes, operators are able to transfer recovery of part of their operational costs to the competitors in form of termination charges. Instead in a scenario wherein the termination charges are low or ideally zero (BAK), each operator has to factor in his operational costs within the tariff itself thereby providing a competition enriching environment. **Thus, Bill & Keep leads to creation of an egalitarian telecom regime which does not provide competitive advantage to one set of operators.**

4.2 **Increased Usage and Support for Innovative Tariff Plans.**

4.2.1 Though figure 1 above clearly shows the increase in MoU corresponding to the increase in subscriber base; however, it is observed that despite this increase in subscriber base, there is a significant fall in usage per subscriber (Figure 5 below refers).

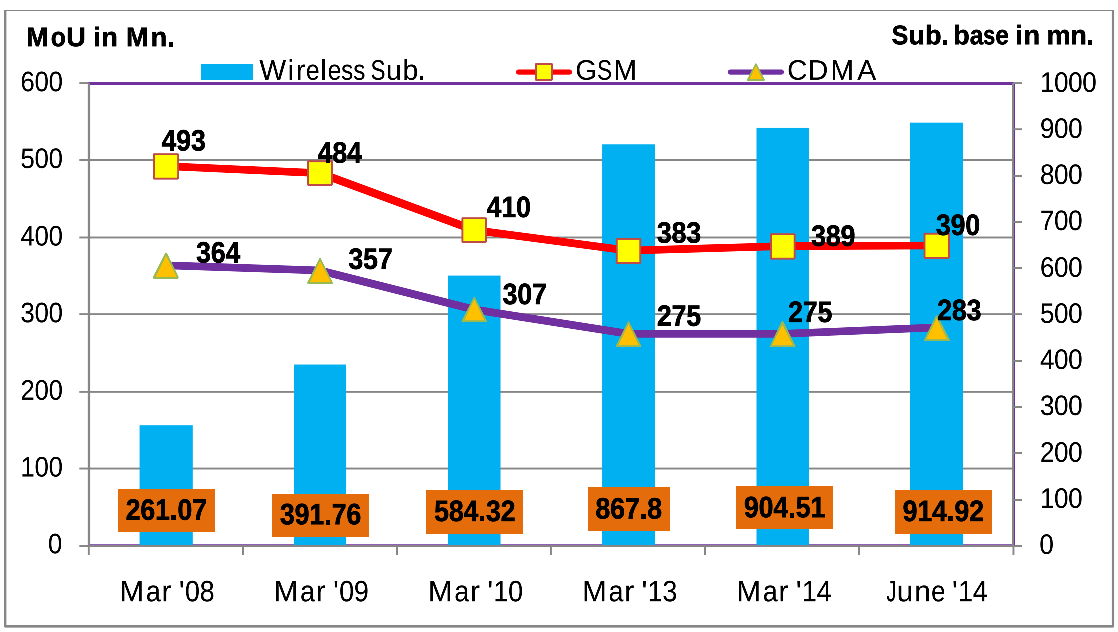

FIGURE 5: SHOWS A DECLINING TREND OF USAGE PER SUBSCRIBER DESPITE INCREASE IN SUBSCRIPTION OF TELECOM SERVICES, Source: TRAI PMR report

4.2.2 BAK provides the flexibility to operators to launch innovative tariffs by removing the floor prices. The reduction in prices directly translates into increased usage of telecom services. It is strongly felt that the declining per subscriber usage trend, observed in Indian market, can be reversed by reducing the termination charges or better still by adopting BAK. The same is corroborated by the available international data on usage patterns in countries where BAK is in vogue.

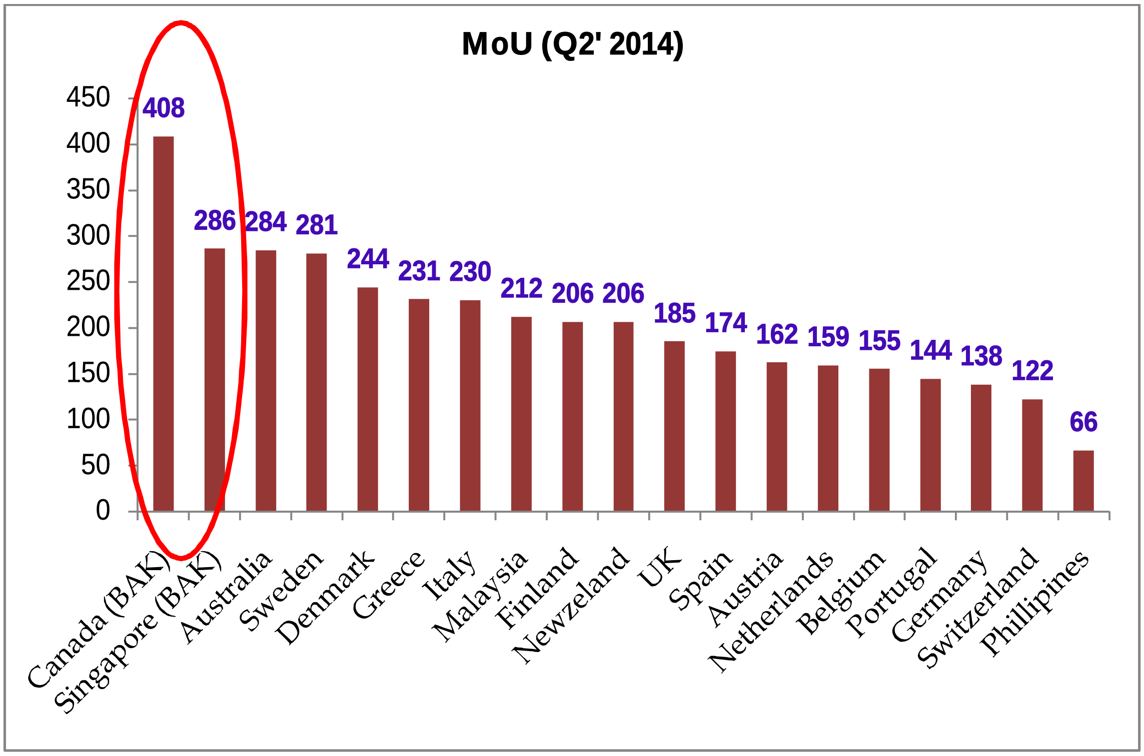

FIGURE 6 : SHOWING WIRELESS SERVICES USAGE PATTERNS ACROSS COUNTRIES WITH AND WITHOUT BAK ARRANGEMENTS, *Source : Merrill Lynch GWM 2Q'14*

4.3 **Does not impact profits.** Termination charges being the wholesale payments between operators, their **elimination does not imply an equivalent and corresponding impact on profit of an operator, albeit it also translates into reduction of costs of operations as well.** Overall, within the whole telecommunications system, net termination payments sum up to zero.

4.4 **Eliminates on-net and off-net pricing discrepancies.** Even though an on-net call makes utilizes double the network resources vis-à-vis a terminating call, yet mobile network operators are able to offer prices well below the termination charges for on-net calls, particularly for large business contracts which have a high proportion of on-net calls. This clearly indicates that the current termination rates are not being taken into revenue (profit) considerations by the operators and that their business models are purely based on volume of traffic over their networks. **Therefore, introduction of BAK shall facilitate a balanced on-net and off-net tariff pricing.**

4.5 **Facilitates Competition.** Given the nature of the Indian telecom market and the vast difference in the size of various mobile operators, it is extremely important that adequate safeguards are put in place, so that operators who are net receivers of wholesale termination charges, are not able to use these funds to cross-subsidize tariffs on calls made internally within their own vast set of subscribers. BAK, therefore, **ensures creation of a level playing field amongst all operators** by enabling them to compete on an equal footing. **With TRAI already exploring the possibility of introduction of MVNOs, BAK shall ensure that the MVNO outsources services from the operator providing better QoS services at competitive prices.**

4.6 **Avoids predatory pricing.** In a competitive market, one set of operators are forced to match these instances of predatory pricing despite having a higher cost base, thus resulting in a margin squeeze. Such distortions can be eliminated by ensuring that the mobile termination rate only covers marginal costs – which can be approximated by the use of avoidable cost calculations or better still are reduced to zero.

4.7 **Is Future Proof as it supports convergence of voice and data networks.** Telecom networks are progressively experiencing a paradigm shift from being voice centric with overlay of data services to being data centric with voice as an application over them. In fact, it is already a reality in the core networks of all the operators. This shift to data networks shall also entail a corresponding change in the termination charges from being purely minutes based to data volume or(and) capacity based and it shall have to take into account the QoS as well. Working out the permutation combination of these parameters for setting of termination charges shall introduce a lot of complexities. Therefore, BAK shall also lend itself to simplicity of both the IUC and MTC regimes. Operators across the globe have already started offering flat charging for voice and data services to their consumers, wherein the consumers have to pay a single charge for bundled voice and data services.

Given the simplicity of accounting, benefits to consumers, competition promotion and the need to have a single interconnection regime for telecom and data services, Bill and Keep (for termination charges) is the need of the hour and the best way forward.

Our response to the queries raised by TRAI is given in the succeeding paragraphs.

Q1: Which of the following approaches would be the most appropriate for Mobile Termination Charge and Fixed Termination Charge:

(i) Cost oriented or cost based;

(ii) Bill and Keep

Please provide justification in support of your response.

Our Response.

RCOM recommends Bill & Keep regime for India as this regime would lend itself to maximize societal welfare by contributing towards delivery of affordable telecom services and consequently lead to (a) higher levels of adoption of telecom services, (b) increased usage volumes per subscriber, (c) supporting the 'Digital India' vision of the current dispensation of the country, (d) minimizing litigations thereby enabling QoS focused services, (e) being future ready for easy migration and adoption of IP based networks and (f) supporting introduction of innovative tariffs and services (e) avoid prolonged settlement procedures and eliminate billing disputes between operators (F) Simplification of AGR and LF determination.

Apart from the advantages / reasons for adoption of BAK listed in the preamble earlier, further justification in support of Bill & Keep regime is given in the succeeding paragraphs.

1. **In alignment with TRAIs Affidavit submitted to the Hon'ble Supreme Court in 2011.**

   1.1. Recognizing the advantages of BAK for the Indian telecom market, way back in 2011 itself, TRAI had proposed[1] reduction of MTC with a glide path to BAK in 2 years time frame while filing an affidavit with the Hon'ble Supreme Court (Civil Appeal No. 271-281 of 2011). The excerpt from the TRAI Affidavit is quoted as below:

   "TRAI is of the view that the termination rates arrived through the pure LRIC method may be made applicable now i.e. from year 2012 to provide a glide path towards BAK in 2 years. This will give sufficient time to operators to adjust o the changes in the termination regime and will ensure a smooth transition."

   1.2. **We are sanguine that TRAIs opinion was the result of sustained and detailed research based on all the socio-economic mathematical models for determining IUC charges i.e. FAC, LRIC, Hybrid LRIC, LRIC+, Pure LRIC etc. We completely and unequivocally support TRAIs viewpoint and strongly recommend that BAK should be implemented in Indian telecom market without any further delay.**

2. **Benefits the Consumer.**

   2.1. High termination charges prevent the emergence of flat rate access pricing as there is an inherent cost involvement in access tariffs due to this.

[1] As per TRAI affidavit in Supreme Court on IUC matter in 2011-2012

2.2. Termination charges tend to set a ‘floor’ on call prices, without which the operators can afford the flexibility of offering flat rate tariffs thereby ensuring that the average prices for making calls are reduced.

2.3. **Elimination of this floor price fixing cost through BAK thus, makes it easier for operators to offer flat rate access tariffs and large bundles of minutes thereby directly benefitting the consumer.**

3. **Supports Creation of a level playing field for TSPs vis-à-vis the OTT players.**

3.1. OTT services, being direct substitutes for telecom services, are in direct competition with TSPs services. However, OTT services being free of usage charges; are at an immense advantage as compared to TSPs’ services. Moreover, TSPs resources are monetized on a per usage basis when the consumer accesses OTT services through the TSPs’ network.

3.2. **Elimination of termination charges, through introduction of BAK, shall support creation of a level playing field, for the TSPs vis-à-vis their OTT counterparts, by empowering them with the flexibility to do away with incremental pricing for their services.**

4. **Internationally operators are supporting reduction in MTC & a way towards BAK.**

4.1. Internationally, the popularity of Bill and Keep regime is gaining traction as it incentivizes efficiency and supports migration to NGN networks.

4.2. European Regulators Group (BEREC) has endorsed BAK as the best alternative to the calling Party Network Pays (CPNP) IUC regime being currently implemented in Europe. In its statement titled “Next Generation Networks Future Charging Mechanisms / Long Term Termination Issues ” dated June 2010 BEREC has concluded thus**:**

“To conclude, BEREC considers BAK more promising than CPNP as a regulatory regime for (voice) termination in the long term. Strict application of cost orientation in the current CPNP environment in the short / medium term for mobile and fixed networks, particularly bringing down mobile termination rates to efficient cost levels, is a major step towards BAK representing the level effect as identified in this CS.”

4.3. Even the European Commission has summarized the advantages often associated with BAK, as follows[2]:

“Given the two-sided nature of call termination, not all related termination costs must necessarily be recovered from the wholesale charge levied on the originating operator. Even if wholesale termination rates were set at zero, terminating operator would still have the ability to recover their costs from non-regulated retail services. Rather it is a question of how these financial transfers are distributed across operators in a way that best promotes economic efficiency to the benefit of consumers.”

[2] EC recommendations on the Regulatory treatment of FTR and MTR in EU

4.4 International regulators such as the European Commission[3] have recommended a glide path to reduction in Termination based on PLRIC. Since then majority of the European countries have significantly reduced termination charges to almost nil.

5. In view of the above it is summarized that:

5.1. **Bill and Keep is ideally suited IUC approach for Indian Telecom Market.**

5.2. **Consistent with TRAIs informed and stated position, the Authority should implement BAK for domestic termination without further delay.**

Q2: In case cost-oriented or cost-based approach is used for determining Mobile Termination Charge and Fixed Termination Charge, is there a need to give a glide path towards Bill and Keep and what will be the appropriate time frame to migrate to Bill and Keep regime?

Our Response.

We do not support cost based or cost oriented approach for determining MTC / FTC and request TRAI to adhere to its informed, legal stand of implementing BAK which is based on facts and is in alignment with the ground realities of the market and country's requirements.

In case TRAI still believes that the market situation does not permit immediate adoption of bill and keep then a glide path of max. 6 -12 months may be recommended with reduction in MTC / FTC based on **Pure LRIC (Avoidable Cost)** approach (Pl. refer to our response to Q 11).

Q3: Which method of depreciation for the network elements should be used and what should be the average life of various network elements?

Our Response.

We recommend Straight Line Method (SLM) for calculation of depreciation for network elements since it divides depreciation expenses evenly over the life of the asset on a nominal and uniform basis.

SLM is a prescribed method for determining depreciation in the Companies Act, 1956. All listed telecom companies are already using SLM for calculating the depreciation of their network elements.

Q4: Should TRAI continue with a pre-tax WACC of 15% as used in framing other regulations, tariff orders, and regulatory exercises? If not, please state what pre-tax WACC would be appropriate for the present exercise, along with justification and computations.

The WACC depends up on the cost of equity, the cost of debt, debt equity ratio and prevalent tax rates. A debt equity ratio of 1:1 is generally considered efficient and may be used in calculations. The relevant tax is MAT which may be applied. The cost of equity is around 13-14%, with the cost of debt being around 11%. Setting the WACC at a higher than necessary value would result in supernormal returns accruing to the operators. **We therefore recommend Pre-tax WACC of 13%.**

[3] *EU recommendation on Regulatory Treatment of FTR/MTR dated May 07 2009*

Q5: In case a cost-oriented or cost-based approach is used for prescribing Mobile Termination Charge and Fixed Termination Charge, which method would be the most appropriate for estimating these costs?

We do not support cost based or cost oriented approach for determining MTC / FTC and request TRAI to adopt BAK approach for IUC settlement.

If at all TRAI decides to adopt cost based approach then we recommend use of Pure Long Run Incremental Cost (Pure LRIC) approach, based on avoidable costs, for prescribing Mobile Termination Charge and Fixed Termination Charge.

It is submitted that the cost methodology to be used for prescribing Mobile Termination Charge and Fixed Termination Charge must take into account the financial differentiation on account of CAPEX and OPEX due to use of different frequency bands (the basic ingredient for provisioning telecom services) being used in different circles. Ex. An operator with 1800 MHz spectrum would require significantly higher number of sites (on a pan India basis) to provide similar coverage vis-à-vis an operator whose operations are dependent on 900 MHz band. **Therefore a model based on avoidable costs, such as Pure LRIC is considered more appropriate for prescribing Mobile Termination Charge and Fixed Termination Charge.** The advantages of Pure LRIC model have been explained in detail in our response to question no 11.

Q6: In case your response to the Q5 is fully allocated cost (FAC) method, would it be appropriate to calculate IUC using historical cost data submitted by the service providers in Accounting Separation Reports (ASRs), Annual Reports/published documents or other reports submitted to TRAI?

Our Response.

RCOM strongly opposes the use of Fully Allocated Cost (FAC) method which is based on historical data given in Accounting Separation Reports (ASR) for estimating termination costs.

1. The accounting separation report being based on historical cost(s) is considered flawed as,
    1.1. The incidental costs like the cost of land, building, vehicles, furniture, patents and technical knowhow, office equipment, etc get loaded on termination costs through this method, albeit to the fact that these costs are already considered in the marketing decision of tariffs determinations.
    1.2. It does not take into account the sharply declining cost of equipment over the past years**.**
    1.3. The avoidable cost for termination of a call cannot be obtained from accounting separation reports.
    1.4. FAC includes various costs (CAPEX/OPEX) arrived because of the business decision of one set of operators.

2. **Therefore, the FAC method for estimation of termination costs, which takes the ASR into account, invariably, inflates the termination cost many times.**

Q7: In the FAC method, what items / nature of OPEX should be considered as relevant for the termination cost? Please provide justification in support of your opinion.

Our Response.

If at all FAC model is to be used for estimation of the termination cost, then it is recommended that only the relevant OPEX involved in termination of a call should be included while determining MTC.

1. Various sundry operational costs viz. Sales & marketing, Employee cost and administration cost etc which are not directly involved in termination of a call should not be included while estimating the termination charges. The justification thereof is as given below:

   a. **Sales and Marketing Cost.** Sales and marketing processes are employed as a shared pool for acquiring the consumers, for all businesses, of the organization and at no point, are they exclusively involved in termination of the call. Therefore they should be excluded while estimating the termination charges for a call.

   b. **Employee cost.** Only network related employee cost should be considered for estimation of termination charges. Employees for shared services like sales and marketing, commercial, legal, administration, HR etc have no role in termination of a call and hence should not be considered in estimation of termination charges.

   c. **Administration cost.** Only the proportion of administration which is associated with the setting up and maintenance of the avoidable network element required for the termination of call may be considered.

2. **There can be no better example of the relevant OPEX cost that is required to be considered for estimation of termination cost than the affidavit filed, by TRAI,** in SC (Civil Appeal No. 271-281 of 2011). The said affidavit succinctly spells out the relevant OPEX for MTC calculations using FAC model for estimation of MTC. The gist of OPEX costs listed in the said affidavit is as given below:

   a. OPEX is bifurcated in to Relevant cost (RC) and Non Relevant Cost (NRCT).

   b. S & M cost was not considered.

   c. Employee cost is apportioned between Network cost, Maintenance cost, administrative cost and S & M cost in a ratio of total cost under the concerned head.

   d. Only 20% of the Administration cost has been considered as RC.

3. **It is once again reiterated that, if at all FAC model is to be used for estimation of the termination cost, then only the relevant OPEX involved in termination of a call, as listed in the TRAIs affidavit filed with SC in 2011, should be included while determining MTC.**

Q8: Should CAPEX be included in calculating termination cost? If yes, what items of fixed assets from the ASRs ought to be considered relevant for termination cost? How should costs incurred by service providers for acquiring usage rights for spectrum be treated?

Our Response.

RCOM strongly opposes inclusion of CAPEX while determining MTC using FAC methodology.

If at all CAPEX is to be considered then the relevant CAPEX used in termination of call may be used.

1. Consideration of CAPEX items mentioned in ASR is not considered appropriate for estimation of termination charges due to the following reasons:

    a. Comprehensive information on the network elements involved in call termination deployed by each operator is generally not available in the ASR. In this scenario any analysis based on the CAPEX involved is likely to contain significant data gaps making accurate calculations difficult. Moreover, **CAPEX of any operator solely depends upon the business decision of that company and it is not correct to load the cost of business decision on IUC**.

    b. The access network is used for innumerable revenue streams like, STD, ISD and Local calls, national and international roaming calls, SMS- Local, National and International, Mobile Internet, Content based VAS, rental, charges for STVs other pre-paid vouchers and packs etc. On few access services like international roaming, international calls, SMS, content based VAS operators make super normal profits. All these revenues are catering to the recovery of the CAPEX and there is no justification to load this cost in IUC.

    c. There can be no better endorsement of the above arguments as a similar logic was used by TRAI while computing MTC in 2009 and TRAI had determined the IUC on the basis of OPEX only.

2. **Notwithstanding the above, if TRAI decides to determine MTC based on FAC approach then we recommend that Relevant OPEX, Depreciation (considering Relevant CAPEX) and ROCE 13% after deducting the revenue earned from rental(s) /activation/Recharge fees, VAS and other income may be used.**

3. **<u>Treatment of spectrum cost in FAC approach.</u>**

    a. It may please be noted that TRAI in its response to DoT dated 12th May 2012 regarding its recommendations on auction of spectrum dated 23 April, 2012 had calculated a maximum impact of 4 paisa per minute on retail tariffs on account of spectrum. The relevant excerpt is as below:

    "*TRAI has also studied the likely impact of the recommendations on per minute tariff, so as to assess the effect on the consumers. ……………………………….. The results* *indicate that mostly, the impact on tariff is less than 4 paise per minute and often much lower………………….”*

b. This impact of 4P was calculated when TRAI had recommended a RP of Rs 3622 Cr per MHz for 1800 MHz however the recent RP of 1800 MHz is much lower than the said RP therefore the impact of spectrum cost on retail tariffs will automatically go down further. In fact, as shown in figure 2 in this response, MTC is only 50% of ARPM therefore the impact of spectrum cost on retail tariffs can only be loaded by max. 50%.

c. **Thus, in all possibilities the impact of spectrum on termination charges would be hardly 1P or less.**

4. In view of the above it is recommended that:

a. **CAPEX should not be included while calculating MTC using FAC approach.**

b. **Spectrum being a component of CAPEX should not be included in MTC.**

c. **Impact of spectrum cost on termination charges would be 1p or less**.

Q9: Would it be appropriate to take an average life of 10 years for all network elements without any salvage value for the purpose of depreciation in the FAC method? If not, please suggest an alternative method keeping in view the categorization of network elements prescribed in Accounting Separation Regulations, 2012, along with justification.

Our Response.

Firstly, we do not recommend utilization of FAC model.

Secondly, in case it is still deemed to be utilized, we recommend utilization of a weighted average depreciation rate of 10% for all network elements without any salvage value for the purpose of depreciation in the FAC method.

1. Electronics have useful life of around 8 years, towers have around 15 years and OFC has 30 years of life span. It is therefore felt that averaging the life of networks elements shall not yield the correct result. However, **averaging the depreciation value shall give a better perspective of the finances involved.**

2. Unlike mechanical systems, the useful life span of any IT system is determined by not only the physical life of the components but it is also dependent on the technology of the components of the hardware (2 micron, 3 micron, etc), the operating software version being used and the system architecture itself. **All telecom network elements being IT systems, it would be incorrect to peg any value to them after their useful life. Hence, it is recommended that their salvage value may be treated as zero.**

Q10: Is there any need to adjust costs associated (as reported in ASRs) with products other than voice calls, for the purpose of computing termination cost using the FAC method? If yes, please suggest the appropriate cost driver along with justification.

Yes, we recommend that total cost should be apportioned between voice, data and other services like USSD etc and the relevant cost associated with the termination of voice call should only be included for calculating MTC using the FAC method.

Q11: Do you agree with the methodologies explained for various variants of LRIC, including the detailed description of computation of the termination cost using LRIC model in the Annexure? If not, please give your answer with justification. &
Q12: In case it is decided to go for an LRIC model for determining termination cost, which is the most suitable variant of LRIC for the telecom service sector in the country in the present circumstances and why?................ :- LRIC, LRIC+, Pure LRIC &
Q13: In case your response to the Q12 is LRIC+, what are the common costs that should be considered for computation of termination costs?

Our Response.

Yes, we agree with all the methodologies explained for various variants of LRIC model.

We recommend PURE LRIC as being the best model amongst all the variants of LRIC and consider it as best suited for the estimation of termination charges till such time BAK is adopted by the Authority.

1. An examination of global best practices with regard to the costing principles for determination of mobile termination charges suggests a clear shift to utilization of the LRIC model. LRIC has emerged as the most preferred choice of regulators not only in Europe & America but also in several developing markets in Asia, Africa and Arab countries. Graphs below show that worldwide 53% of the regulators have preferred LRIC methodology over other approaches especially FAC for determining MTC.

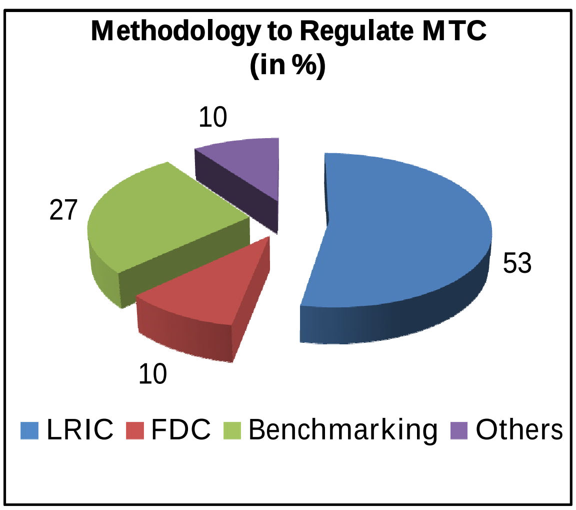

FIGURE 7 : SHOWING WORLD WIDE ADOPTION OF LRIC Source: ITU tariffs report 2013.

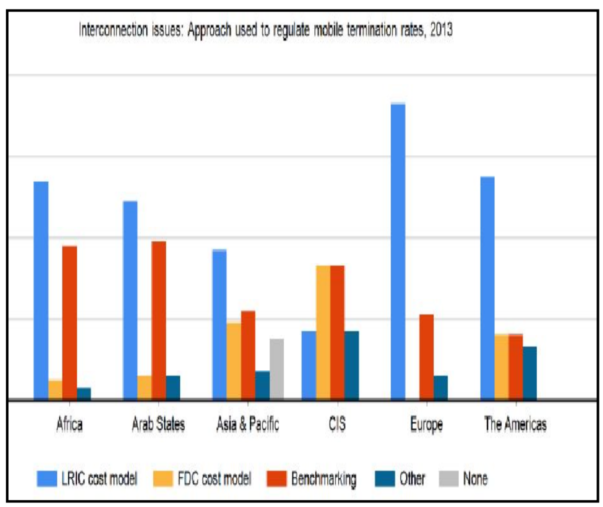

FIGURE 8 : SHOWING COUNTRY WISE ADOPTION OF LRIC Source: ITU tariffs report 2013.

2. Amongst the various flavours of LRIC, we recommend that **PURE LRIC** is best till such time BAK is adopted by the Authority. The reasons for the same are as given below:

   a. Applying the Pure LRIC method ensures that only the cost related to providing additional network capacity to handle the incoming interconnecting traffic is taken into account when estimating the termination cost.

   b. The non-incremental common and joint cost, markup etc used in conventional LRIC is not allocated to termination under pure LRIC model.

   c. PLRIC based MTC will eventually compensate all set of operators wherein Operators will get their return from high usage rather from high termination.

   d. PLRIC based MTC works out the least amongst all its flavours and hence would aid the TSPs to provide competitive tariffs in a converged environment wherein substitute services offered by OTT players are eating into TSPs revenue.

   e. Implementation of PLRIC based MTC is in consonance with TRAIs own stated position that it had advocated in its affidavit filed in Hon'ble SC in 2011.

   f. International regulators such as the European Commission[4] have recommended a glide path to PLRIC model in 2009. Since then majority of the European countries have migrated to PLRIC. A Recent quote from European parliament question reply[5] stating the position of PLRIC is reproduced below for reference please:

   "*As of the beginning of August 2014 17 Member States have implemented pure long-run incremental cost (LRIC) modeling to set mobile termination rates (ES, PT, FR, UK, IT, BE, PL, DK, CZ, BG, SE, AT, EL, MT, RO, SI, SK); Lithuania is in the process of implementing its final decision. Moreover, the following three Member States set mobile termination rates on the basis of benchmarking against pure LRIC rates (LV, LU, EE). 14 Member States have implemented pure LRIC cost modelling to set fixed termination rates (FR, IE, BG, DK, MT, AT, EL, SK, UK, RO, CZ, IT, SE, HU); Slovenia is in the process of implementing its final measure.*"

   g. A scan of the international scene (Figure 9 below refers) reveals that the Countries where PLRIC has been implemented, it has lead to reduction in MTC (Refer fig 4), thereby increasing MOU per subs from year 2009 to year 2013.

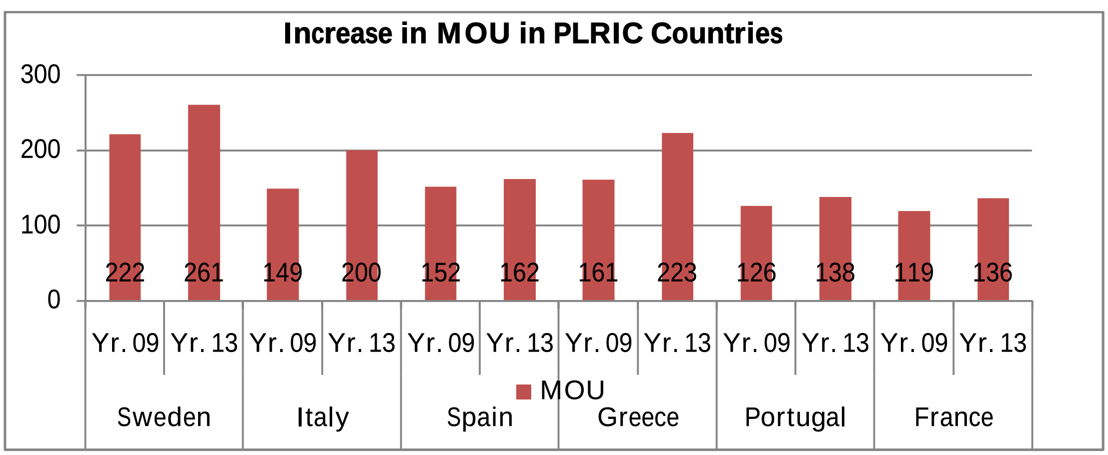

Figure : 9 Showing increase MOU in PLRIC countries, Source: Merrill Lynch 2Q'14

[4] *EU recommendation on Regulatory Treatment of FTR/MTR dated May 07 2009*

[5] http://www.europarl.europa.eu/sides/getAllAnswers.do?reference=E-2014-005974&language=EN

3. **Based on above facts it is recommended that MTC rate, based on PLRIC model, should be implemented till BAK is adopted by the Authority.**

Q14: In case there is a significant difference in the mobile termination cost and fixed termination cost, will it be appropriate to prescribe different mobile termination charge and fixed termination charge?

Our Response.

The MTC and FTC should be equated.

1. The communications world is moving towards a scenario where a subscriber is able to access similar telecom and IT services ubiquitously, at all times, using multiple devices and through any medium of access (connectivity). Prescription of differential MTC and FTC shall be against these tenets of modern converged communications.
2. Disproportionate charges for FTC and MTC has the potential to,
   a. Skew the traffic towards a particular medium of connectivity resulting in under utilization of other networks.
   b. Consequently, demand an increase of termination charges due to increased traffic on a particular network.
3. **Therefore, in the best interest of the consumer, it is ideal and highly recommended that MTC and FTC should be equated.** This would also be in consistent with TRAIs stand, adopted during the IUC exercise in 2009, of keeping equal & symmetric MTC and FTC.

Q15: The Authority has already prescribed access charges to facilitate the introduction of calling cards. Is there any other issue which needs to be addressed so that the consumer gets the most competitive tariff for ISD calls?

Our Response.

We fully support TRAI recent regulation on implementation of calling card which provides more competition in the ILD calling segment. However, Authority intervention is requested as most of the leading operators are still not amenable to signing the agreement for implementation of said Regulation thereby depriving consumers the advantage of competitive international call rates.

Q16: Do you feel that the Authority's intervention is necessary in the matter of International Settlement Rates? If so, what should be the basis to determine International Settlement Rates?

Our response.

Yes, TRAIs intervene in the matter of International Settlement rates are warranted and shall be most welcome. International Settlement Rates should be cost based and on reciprocal treatment for the operators in other countries.

1. The TRAI's international telecommunications policies like abolition of ADC and putting carriage charge for ILD calls including international settlement under forbearance have played an important role in reducing foreign termination cost and have truly reflected the

existing liberalized environment prevailing in the Indian telecommunications market and should continue.

2. Foreign operators often use their monopolistic power to charge higher settlement rates. A classic case in point is that of the Middle East countries who have stipulated very high settlement rates leading to disproportionate traffic and loss of FOREX.
3. TRAIs intervention through diplomatic channels shall contribute towards protection of the interest of Indian consumers as higher international settlement rates add cost for the ILDOs which is ultimately passed on to the Indian consumers. **It is suggested that the basis of settlement rates should be cost based and on reciprocal treatment for the operators in other countries.**

Q17: Is there a need to fix a floor for international carriage charge for incoming international traffic or prescribe some revenue share between access service provider and the ILDO to safeguard the interest of ILDOs?

Our Response.

RCOM recommends that equated charges for international and domestic terminations be fixed.

1. A call originating from an international network is handed over to a domestic NLD operator or access provider for carriage or termination. The path followed by the call from the ILDO gateway to its destination is the same as if it were a domestic call. Since the same network elements, as in a domestic call are utilized, the costs incurred are exactly similar irrespective of the call being originated nationally or internationally, post ILDO gateway. Since there is no extra cost involved in terminating an international call as compared to a domestic call, the **international termination charges should be kept at the same level as domestic termination charges**.

2. An IUC regime which provides for arbitrage between the termination charges for domestic calls and international calls or between traffic originating from two different geographies will inevitably lead to a situation which compromises on the national security and provides impetus to Grey market, Black money and loss to national exchequer as well as to the operators and hence not desirable.

3. **It is therefore recommended that uniform termination charges for ILD and domestic termination based on work done principles for both be fixed and also request that the access provider should be paid at the same rate for both types of calls.**

4. **Notwithstanding the above, if the Authority decides to keep asymmetric termination charges as at present for domestic and incoming international calls, then the additional amount charged over and above the domestic termination, should be divided in 60:40 ratio between ILD and access provider**.

Q18: What is the most appropriate level for International Termination Charge? Should it be uniform or should it depend on the originating country / region?

Please provide full justification for your answer.

Our Response.

Termination charges should be estimated purely based on the work done principle and there should be no discrepancy on grounds of originating country / region.

Any asymmetric ILD termination rates based on originating country will lead to grey market wherein operators may start hubbing the incoming traffic towards India, from the country from where the termination rates are lower.

Q19: What should be the methodology for determining the domestic carriage charge? Is there a need to specify separate carriage charges for some specific geographic regions? If yes, on what basis should such geographic regions be identified? How should the carriage charges be determined separately for such geographic regions?

Our Response.

The Authority may continue to use bottom up costing methodology based on current costs to estimate per minute carriage charges.

There is no need to specify separate carriage charges for some specific geographic regions. It should be kept uniform across the length and breadth of the country.

1. Ever since the current carriage charge ceiling of Re 0.65 per minute were notified in 2006, the costs on account of economies of scale, network architecture and network equipment have reduced substantially. Consequently, the prevailing market rates for carriage are significantly lower than the prescribed ceiling tariff. All these factors should be kept in mind while determining revised ceiling for carriage charges. Any ceiling above the prevailing market rates will defeat the purpose of regulatory intervention.

2. The current dispensation of our country has envisioned building a 'Digital India' which warrants provisioning of affordable telecom services in every nook and corner of India. Stipulation of separate ceiling tariff, especially higher, for any specific geographic area / region like remote and hilly areas can potentially result in increased cost of telecom services in areas commanding higher carriage charges. Given the fact that the per capita income in these areas is less than the average per capita income of the country, prudence dictates that such a policy shall prevent adoption of telecom services in these areas. The current charging mechanism ensures that the carriage costs are averaged and recovery is even from urban and rural calls.

3. Instead of setting preferential carriage charges, it is felt that the operators shall be incentivized to increase their network penetration and simultaneously providing affordable

telecom services through initiatives such as offering subsidies for laying and operating networks in remote and hilly areas, through the USO fund.

4. **Our recommendation therefore is that the carriage charges, firstly should be uniform across the country and be left to forbearance and secondly, its ceiling should be revised to 40 p per minute.**

Q20: Is there a need to regulate the TAX transit charges or should this be left to mutual negotiations? In the event, the transit charge is to be regulated, please provide complete data and methodology to calculate TAX transit charges.

Our Response.

There is an urgent need to either eliminate or stipulate the TAX transit charge to just 2p per min.

1. Ideally transit charge may be applicable wherein an operator is not in a position to establish direct interconnection with all service providers and therefore such an operator would be required to get transit connectivity. It must however be emphasized that such facility should be cost based so that burden of the transit charge does not result in higher Termination charges.

2. However, as a deviation to the above principle, BSNL charges the transit charge where it is not able to provide PoI at their Cellone MSC and asks the operators to transit the call through the L1 TAX. In our view, capacity building at the MSC / TAX is a business decision of BSNL and therefore the cost of BSNL's inability to provide the direct PoI should not be transferred to the other operators. It is submitted that the Transit charges should not be applicable where BSNL is unable to provide PoI demanded by the operator within 30 days.

3. A simple model, based on leased line cost for the local loop, distance band involved and discount available in the market on local loop has been provided at Appendix 1 (for transit carriage charge calculation). This model clearly justifies a max. 2P per min. as a cost based transit charge.

4. **In view of the above, we request that the transit charge should be abolished or be set at max 2 P.**

Q21: How can the cost of providing transit carriage be segregated from the cost data in the ASR? Please provide a method and costing details to separately calculate this charge.

Our Response.

The cost of providing transit carriage cannot be segregated in the ASR since the distance based data is not captured in the ASR.

1. Operators request for a transit facility only in case of an emergency breakdown or network congestion on the direct link for calls originating from a mobile phone and terminating either on another mobile phone or on a BSNL fixed line connection after transiting through BSNLs L1/L2 TAX.

2. The current charge of Rs 0.15 / min is much above actual cost and the charge from LDCA to SDCA should be based on actual cost incurred. Private operators continue to be constrained by BSNL to handover their traffic to BSNL at L2 TAX and pay the transit carriage charge of Rs 0.15 / min. This makes this segment non competitive and is clearly not in the best interest of the consumer.
3. **We request TRAI should either abolish or revise the cost for transit carriage charge from BSNL L2 TAX to SDCA level to a value that is based on the actual cost incurred as opposed to the current value of Rs. 0.15/min.**
4. A simple model based on leased line cost for the local loop, distance band involved and discount available in the market on local loop has been provided at Appendix 1 (for transit carriage charge calculation). This model clearly justifies a max. 2P as a cost based transit carriage charge.

Q22: If the costs of all relevant network elements are taken into account in the calculation of the fixed line termination charge, is there any further justification to have a separate transit carriage charge? Please give reasons for your answer.

Our Response.

If the costs of all relevant network elements are considered under fixed line termination charge, there is no justification for charging of separate transit carriage charge by BSNL.

1. As mentioned in our response to question no. 21, only the private operators resort to availing transit facilities from BSNL to mature their subscribers calls to BSNL SDCA based Landline phones. Therefore it's only the private operators and their subscribers who bear this cost.

2. Moreover, in case of LDCA – SDCA transiting, normally the call transit distance is minimal or within 50 KM, we therefore recommend to either abolish this transit carriage charge or make it cost based to 2P. **The justification/calculation of transit carriage charge of 2 P is as per Appendix 1**.

3. It is recommended that :

    a. **At no point it should be allowed to be negotiated else given the reach and depth of BSNLs' network, it would start charging exorbitant amount for this segment.**

    b. **Should be either reduced substantially from the current level of Rs. 0.15/min & Rs 0.14/min to the amount actually incurred by the operator, i.e. Rs. 0.02/min or it should be eliminated altogether.**

OTHERS:

1. **BAK for SMS termination:**

   We recommend that BAK should be adopted for SMS termination charges.

   We have been consistently representing to TRAI that SMS termination charges on the basis of cost approach is only fraction of 1 paisa and hence there is no case for imposing termination charges on any form of SMS. SMS termination charges especially on commercial messages were imposed as a deterrent to avoid UCC through this route. However over the last one year, TSPs have taken various measures like content filter, SPAM blocking etc resulting in drastic reduction in UCC through SMS. **We therefore believe that TRAI should do away with SMS termination charges and adopt BAK for all form of SMS. If Authority feels a need to continue with approach of treating SMS termination charges as deterrent to curb UCC, we recommend that current termination charges for only 'Promotional SMS' may be continued with.**

APPENDIX 1

Calculation of TAX Transit / Carriage Charges

1. Cost of DLC with in 50 KM as per TRAI order(14th July 2014) : Rs 75000
2. Port charges fixed by TRAI for TAX exchanges : Rs. 10000
3. Total cost of transit charge with in 50 KM: 75000+ 2(10000) = 95000.
4. Traffic handles by E1 in an year : 4 Mn
5. Cost based Transit carriage charge: 95000 / 4 Mn = 2Paisa

It may be noted that BSNL is shifting from its old switched to IP switches which further reduce the transit carriage charge.