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SSTL/Reg/TRAI/ 1412/509

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Subject: Response to TRAI Consultation Paper on 'Interconnect Usage Charges' dated 19th November 2014

Dear Sir,

At the outset we appreciate and welcome the Authority's consultation paper on 'Interconnect Usage Charges' dated 19th November 2014 at this juncture.

With reference to above please find enclosed our comments and point wise response to the consultation paper on 'Interconnect Usage Charges' dated 19th November 2014.

We hope that the Authority will consider our views and comments enclosed while making the recommendations for 'Interconnect Usage Charges'.

Thanking you,

With Regards,

For Sistema Shyam TeleServices Limited

Sunil Gupta
Associate Director

Enclosed: As above

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RESPONSE TO THE TRAI CONSULTATION PAPER NO.13/2014
ON INTERCONNECTION USAGE CHARGES

Summary

Sistema Shyam Teleservices Ltd (SSTL) proposes zero termination rates i.e Bill and Keep regime as it establishes level playing field between TSPs and promotes competition.

The On-net/ off-net price discrimination deters customers of large networks from making calls to a small network, thus significantly reducing the value of small network to potential subscribers. When on-net calls are priced below off-net calls, subscribers to large networks experience lower average call charges than subscribers to smaller networks, since more of their calls are made on-net. Thus large networks have clear advantage under a Calling Party Regime and higher the termination charges, the more advantage they have over smaller networks.

Incumbent networks engineer an on-net/off-net retail price differential at the retail level to which makes their networks more attractive to customers. As smaller operators are 'forced' to offer low off-net call prices which leads to a large amount of off-net traffic and therefore there is a net outflow of traffic from the smaller network. This is unprofitable and deters competition as most incumbents set on-net prices even below the level of the regulated MTC. Thus termination charges force traffic imbalance. SSTL strongly recommends to adopt Bill and Keep regime so as to prevent traffic skewness in favour of incumbents operators.

In addition to the promotion of competition, the BAK regime also eliminates the complexities arising out of computing cost based termination charges, in the light of different spectrum bands, constraints of spectrum, Operators entering at various stages, and working at various levels of competition & costs, technology challenges, etc.

The BAK regime would also avoid complex settlement of IUC and get rid of innumerable disputes between TSPs. The process of License Fee and SUC processing and settlement would also be much easier and quicker as most complex issues is with regard to IUC ascertaining pass thru charges and finalization of AGR.

The Authority in its affidavit before Hon'ble Supreme Court had admitted that BAK regime should be implemented from 2014. SSTL suggests that BAK should be implemented immediately. In case Authority believes that glide path is still required in 2014 then BAK may be considered from 2016.

The main cost component in a voice call is termination charges. Termination charges rate of 30 p/min was first notified in 2003 and since then it has been reduced to only 20 paise/min. To align termination charges to the actual cost, SSTL suggest that the termination charges should be substantially reduced by adopting Pure LRIC methodology. Applying the pure LRIC method would ensure that only the cost related to additional network capacity to handle the incoming interconnecting traffic is taken into account while estimating the termination cost. SSTL suggests that the termination charges should only be around 5 paise per minute.

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.

The Bill and Keep (BAK) regime is superior to the cost based or cost oriented regime for the following reasons:

a) Enhancement of Competition
b) Simplicity of tariff formulations
c) Increase in Usage
b) Technology Neutrality
d) Elimination of traffic distortions
e) Ease of implementation
f) Easier processing and settlement of License Fee and Spectrum Usage Charges
g) Reduction in inter-operator disputes with regard to IUC settlement

The above issues have been elaborated below.

i. **BAK Regime balances traffic between interconnected TSPs:** Incumbent networks design on-net/off-net retail price differential at the retail level, in order to deter calls to competing networks. Smaller networks to remain competitive have no choice but to respond by setting even off-net prices at the same level as the larger networks on-net price. As smaller operators are 'forced' to offer low off-net call prices which leads to a large amount of off-net traffic and therefore there is a net outflow of traffic from the smaller network.

   Due to the traffic distortion arising due to termination charges, incumbent and larger networks huge competitive advantage. The BAK regime would help balance out traffic between operators.

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ii. **BAK Regime promotes competitive Termination cost recovery**: BAK transfers the cost of termination from the regulated space to the retail market. Thus recovery of access cost becomes subject of competitive forces and achieves the most efficient levels, leading to lower cost of service.

iii. **BAK Regime Promotes Simple Tariffs:** Under a BAK regime, the differential pricing between on-net and off-net calls, which currently results in complexity for the subscriber in undertaking cost comparison between service providers, would be removed. This would result in simplification of tariff plans with same charges for off-net and on-net calls which would remove any confusion in the mind of a subscriber relating to cost of the call.

International examples also establish that BAK regimes tend to encourage more efficient retail pricing structure.

iv. **BAK Regime is Technology Neutral:** The current network framework in India is quite complex on account of divergent network technologies and multiple network providers. TRAI has so far adopted uniform rates across all technologies irrespective of actual costs. The cost profile of every network is different and the calculation of termination charges may become extremely intricate. It would be difficult to justify uniform termination rates especially when TSPs offer 2G and 3G services and soon TSPs will offer voice service over 4G. Calculation of separate charges for different technologies would make regulation unwieldy and difficult to implement.

Within validity of the next IUC regime, subscriber will have option to call using VoIP, VoLTE, 2G, 3G, femto-cells, WiFi hotspots, BWA and fixed-mobile converged calling. In this scenario the BAK regime is more suitable as this regime will prvent advantage to any particular technology.

v. **BAK Regime is easy to implementation:** There is much greater ease of implementation for the BAK regime as TSPs are not required to settle account for calls to and from their networks. It is simple and low cost mechanism as it requires no billing and very tedious settlement system. There is no need of billing, reconciliation and settlement.

Most litigations and disputes between operators arise due to complexities of settlement of IUC. The processing and settlement of license fee and Spectrum Usage Charges is also difficult due to the IUC regime as licensor requires confirmation and supporting documents of all charges paid by one operator to the other operator to allow passthru claims. BAK regime would lessen inter-operator disputes and will make processing and settlement of License Fee and Spectrum Usage Charge regime much simpler.

vi. **BAK Regime facilitates adoption IP networks:** In internet networks which are IP based networks, per minute interconnection charges are not applicable. The termination charges work as disincentive to deploy IP networks. Moving towards BAK would encourage the deployment of IP based telecom networks. Thus BAK regime is a natural progression in line with the development of technology.

vii. **BAK Regime Promotes Level Playing Field Between PSTN and OTT Service Providers:** The current IUC regime gives huge advantage to OTT players providing telecom services likes voice calls and messaging are termination charges are not applicable on OTT players. Services offered by Skype, Viber, Vonage, Whatsapp, Apple Facetime etc are being used large number of subscriber and these services are getting popular with each passing day. OTT calls are not routed through internet and therefore termination charges are not payable. BAK regime would provide equal field to PSTN operators to offer tariffs which are competitive and help reclaim the lost market to the OTT players.

viii. **BAK Regime increases usage:** Termination charge is floor price for retail tariffs and therefore not much flexibility is available with service providers to design tariffs. BAK would help to remove this barrier and provide more flexibility for packaging of calls and SMSs. BAK will thus result in increased usage. International experience for BAK countries like US, Singapore and Hongkong also shows that BAK regime results in significantly higher levels of calling activity as service providers are given the flexibility to offer innovative customized tariff plans to their consumers.

In view of the above mentioned reasons, SSTL strongly recommends adoption of BAK Regime.

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?

SSTL suggests that the BAK regime should be adopted immediately due to the reasons mentioned in response to the Question 1. The Authority in its affidavit in Supreme Court in 2012 has also supported BAK regime from 2014 as it is has advantages of simplicity and ease of monitoring.

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In case TRAI believes that BAK cannot be implemented immediately and a gliding path approach is still required then it is suggested that the target to implement BAK should be extended by two years period i.e it should be implemented latest by 2016.

During the glide period it is suggested that the termination charges should be significantly reduced by adopting of Pure LRIC costing methodology. The Pure LRIC is most widely used methodology to estimate termination charges. In the 2009 EC Recommendation recommends that all European Regulators should adopt Pure LRIC standard. Most European Regulators which have already adopted Pure LRIC-based Mobile Termination Charge.

In view of the above SSTL suggests that :

- (i) **Implement BAK immediately;**
- (ii) **In case TRAI believes glide path still needed then termination charges should be based on Pure LRIC methodology with the target to implement BAK by 2016;**
- (iii) **During the glide period the termination charges should be based on pure LRIC.**
- (iv) **Termination charges should be significantly lower than the current levels.**

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

The straight line method (SLM) should be used as depreciation expense is evenly distributed over the life of the asset. SLM is a prescribed method for determining depreciation in the Companies Act and is being followed by all TSPs.

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 on the cost of equity, the cost of debt, debt equity ratio and prevalent tax rates. Higher the debt equity ratio, lower would be WACC. Considering very high debt, equity ratio for the telecom sector, the pre-tax WACC of 15% is reasonable.

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?

In case TRAI decides to use cost oriented or cost-based approach for prescribing MTC or FTC then these should be based on Pure LRIC methodology. Pure LRIC is being used by most Regulators as only unavoidable costs are considered relevant for termination charges.

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?
&
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.

SSTL does not support Fully Allocated Cost (FAC) as it includes costs corresponding to each and every network element. Termination charges should be based only on unavoidable costs for providing termination services. FAC based termination charges are very high and does not reflect cost of a competitive market.

The FAC methodology is totally against the philosophy of market led pricing. The FAC regime would protect inefficiency by guaranteeing a rate of return on all costs and investments. The FAC regime infact is a cross subsidy of incumbent networks paid for by new entrant operators. Therefore, the Authority should out rightly reject FAC regime.

SSTL strongly opposes use of historical cost or data provided under ASR for estimation of termination charges. Historical Costs are not reflective of the changes in business and operating conditions. In a competitive market recovery of inefficient costs are not possible. The regulatory principle of costing and pricing is to mimic the competitive market and use most recent costs based on latest technologies. ASR is based on historical costs and therefore termination charges based on such cost would not reflect pricing of a competitive market. Adoption of ASR would result in transferring of inefficient costs to the other operators.

In view of the above SSTL suggests to reject FAC and adopt Pure LRIC for estimation of termination charges.

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?

SSTL suggests to use Pure LRIC method to calculate termination charges. Pure LRIC includes CAPEX and OPEX for all unavoidable network elements for providing termination services.

Under Pure LRIC model, spectrum cost is not relevant and therefore not required to be included to estimate the termination charges. The willingness to pay for spectrum required to deliver off-net terminating traffic is same as the additional network costs for the additional capacity to deliver off-net terminating traffic i.e. if network equipment rather than spectrum were used to provide the additional capacity.

The Pure LRIC methodology has been explained in figure 1 below in which network costs are estimated with and without terminating traffic. Thus model measures the avoidable network costs for the traffic increment for termination of calls received from other operators. Viewed in this way, spectrum value or spectrum CAPEX is not required to be included in the pure LRIC model of Mobile Call Termination.

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.

The average life of all network assets should be taken as 10 years. The life of cables, buildings, ducts, towers and other passive infrastructure items is much more and should be as per the depreciation rates provided schedule XIV of the Companies Act

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.

SSTL does not agree with the proposal of termination charges based on Fully Allocated historical costs. TRAI should consider pure LRIC model and further taking into cognizance the technological advancements, spectrum band, growth in traffic, cost allocations for growing usage of data services etc. SSTL suggests that the TRAI should use bottom up Pure LRIC methodology based on current costs rather than using Fully Allocated Costs.

SSTL suggests that only forward looking current costs should be taken in to consideration and not the historic costs while determining the termination charges. The costs reported in "ASR"s should not be used for the purpose since they incorporate historic costs and are not reflective of the changes in business and operating conditions. Adoption of ASR would result in transferring of inefficient costs to the other operators . ASR costs are also not reliable as it is open for TSPs to select cost drivers for apportionment of common costs to various segments.

In view of the above SSTL suggests that the TRAI should consider only forward looking current costs for the purpose of deciding termination charges.

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?

(i) LRIC
(ii) LRIC+
(iii) 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?

SSTL agrees with various LRIC variants discussed in the consultation paper. Internationally regulators such as the European Commission have recommended to **use pure LRIC model**. SSTL suggests that Pure LRIC methodology should be used in case BAK regime is not immediately possible. Applying the pure LRIC method would ensure that only the cost related to proving additional network capacity to handle the incoming interconnecting traffic is taken into account while estimating the termination cost.

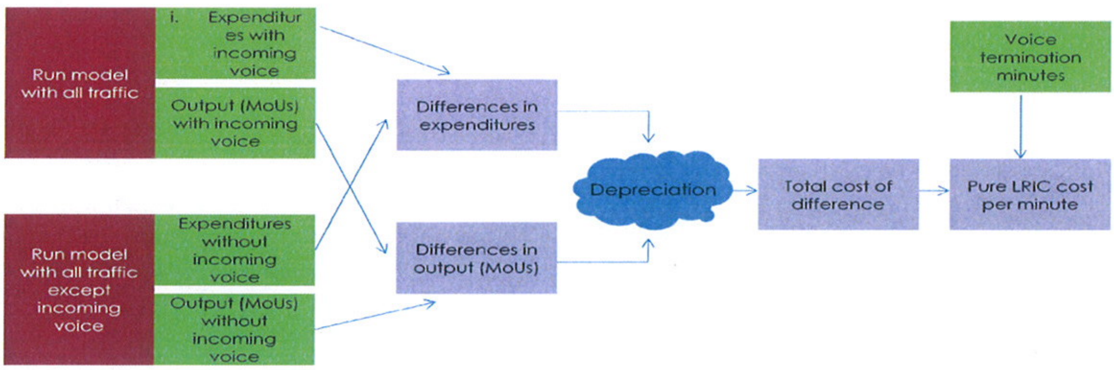
Internationally, most regulators have started using PURE LRIC methodology. In Europe Regulators from the following countries have used Pure LRIC to estimate termination costs.

Country	Date of implementation of Pure LRIC
Belgium	01-Jan-2013
Czech Republic	01-Jul-2013
Denmark	01-Jan-2013
France	01-Jan-2013
Greece	01-Jan-2015
Italy	01-Jul-2013
Poland	01-Jul-2013
Portugal	31-Dec-2012
Spain	01-Jul-2013

Sweden	01-Jul-2013

Under the Pure LRIC model, the total network cost to carry all traffic is first calculated, followed by calculation of the cost, without considering the minutes of traffic terminating from other networks. The cost of terminating traffic is held to be the difference between the two results. This cost is then divided by the number of minutes to estimate the MTC. The non-incremental common and joint cost should not be part of the cost considered for estimating termination charges. The following schematic representation explains the Pure LRIC methodology:

Figure 1



The termination charges are required to be significantly reduced to around 5 paise per minute. The TRAI in an affidavit filed in 2012 in Hon'ble Supreme Court and suggested 10 paise/min termination charges

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?

TRAI should decided termination charges on the basis of Pure LRIC costing methodology for mobile as well as fixed line termination charges.

As incremental cost in case of fixed line access is much lower than the wireless mobile access, the fixed termination charges should be lower than the mobile termination charges. Therefore, TRAI should prescribe lower fixed termination charges compared to Mobile Termination Charges.

In fixed line networks the cost of the access network is subscriber driven i.e. each subscriber needs a line and a line card regardless of usage levels. On the other hand a mobile network's costs are driven by usage as both spectrum and equipment is shared between subscribers and the amount required is driven by usage. Thus the incremental cost for mobile networks is much more than the fixed line networks.

In India the termination charge for fixed line network is higher as cost of transit from TAX is also added to the termination. The flaw in the costing methodology should be corrected in the current review and fixed line termination charges should be decided lower than mobile termination charges.

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?

The Authority has already decided origination charges for Calling Cards and therefore no regulatory intervention is needed at this stage.

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?

No regulatory intervention is required to for the Settlement rates in India for international long distance calls. These rates are commercially negotiated and it would not be correct to intervene in a competitive market.

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?

The international carriage charge market is competitive and rates are under forbearance. ILDOs are free to increase or decrease carriage charges depending on the market forces. There is no need of regulatory intervention to provide any support to ILDOs.

Further, there cannot be any revenue share between access provider and ILDO for termination charges as bot operators are providing different services. ILDO offers carriage services and can have no claim on fermination charges.

There is no case to fix any floor price for international carriage charge as floor pricing is prescribed only in instance of predatory pricing. As there is no complain of predatory pricing, we do not support any floor price for international carriage for incoming calls.

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.

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The international termination charges cannot be prescribed on the basis of cost alone as these are decided through commercial arrangement between ILDOs and foreign operators. The International Termination Charges of 40 paise/min fixed by TRAI during the last review of IUC, put Indian TSPs in a hugely disadvantageous situation vis-a-vis foreign operators. In many countries termination charges are 8-10 times higher than Indian termination charges.

The international termination charges must ensure that Indian operators are not at any disadvantage vis-ais foreign operators who receive much higher termination charges. Higher termination charges by foreign operators not only cause loss to the Indian operators but also result in huge FOREX outgo. Higher termination charges would help Indian TSPs to rationalize ILD tariffs to the benefit of consumers as well as service providers.

In view of the above it is suggested that International Termination Charges should be increased to atleast Re 1/min.

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?

There is a need to review ceiling for domestic carriage charge. Since notification of the last carriage charge with a ceiling of 0.65 paise per minute, significant changes pertaining to technological advancement, reduction of network element cost, changes in network architecture etc have taken place. The prevailing market rates are significantly lower than the ceiling tariff. In view of that, we suggest ceiling of carriage charge should be reviewed and fixed at much lower level.

The Authority may use bottom up costing methodology based on current costs to estimate per minute carriage charges. However, cost based calculations may also be calibrated against prevailing market rates for carriage of calls which is only around 10 paise per minute. Any rates which are much above prevailing market rate would defeat the purpose of regulatory intervention to prescribe the carriage charges.

There is no need of specifying separate carriage charge for some specific geographical reasons. It may please be noted that the key impediment of the growth of services in the rural and remote areas is the cost to serve and any regulatory intervention for having deficient / high carriage charge in these areas would further increase the service cost and will affect the uptake of services by subscribers.

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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.

Private operators continue to be constrained by BSNL to handover their traffic to BSNL at Level II TAX and compulsorily pay the transit carriage charge which are much above actual cost. If a mobile operator is present in the SDCA and is willing to interconnect at SDCA level but still they are forced under the TRAI Direction to interconnect at Level I and pay the carriage charge. This makes this segment totally un-competitive and clearly not in the best interest of the 930 million mobile consumer who have to pay mandatory additional carriage charge for making calls to a fixed line subscriber.

In view of the above SSTL suggests that the TRAI must either ensure increased competition in this segment by allowing access providers to allow NLDOs for their intra circle long distance calls or TAX carriage charges should be abolished.

In case, the Authority is unable to abolish immediately then these charges should be aligned to the actual cost. A simple model based on leased line cost for the local loop, distance band involved and discount available in the market on local loop should be used to estimate TAX carriage charge. The TAX transit charge should not be more than 1 to 2 paise per minute.

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.

The cost of providing transit carriage cannot be segregated in the ASR since the distance based data is not captured in the ASR. ASR data should not be used to estimate cost of transit carriage charge. The Authority is requested to estimate cost on the basis of bottom up model based on current costs.

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.

Fixed Line Termination Charges should be estimated using Pure LRIC methodology. In wireline network, no element is depended in usage and therefore incremental costs in long run are negligible. The Fixed Line Termination Charges should be much lower than mobile termination charges.