TCL Response to Consultation Paper on Review of Interconnection Usage Charges dated 31st December 2008

Since the inception, the IUC regime has been a major factor in developing a working commercial model to address various issues in a multi-operator multi network environment. At the time of implementation of the first IUC in Jan 2003 the need was to specify an IUC regime which gives greater certainty to the Inter-operator settlements and facilitates interconnection agreements. Thus cost based Interconnection Usage Charges (IUC) for origination; transit and termination in a Multi-Operator environment were the need of the day. We would like to commend the approach adopted by the Authority since the inception of the regulation which has resulted in a generating a neutral and sustainable business environment in the Telecom Industry. It has been more than five years since the first IUC regulation however; the considerations for evaluating the interconnection regime continue to be the same.

We would like to present the following aspects which have been highlighted in various forms during this period of Telecom growth since the time of implementation of IUC regime:

- Priority to provide affordable communications to the Indian Masses
- Need to provide a litigation free and simple interconnection regime
- Need to ensure sustenance of all competing operators to ensure sufficient level of competition and avoid monopolistic situation in the telecom market
- Be proactive and flexible to assimilate future growth and scenarios and technological advancement

The current review should take cognizance of all the above factors to arrive at a refined regime which can act in a way similar to the earlier regime and facilitate assimilation of all relevant aspects including if required taking steps to propose changes in policies.

Keeping in view the above we shall like to submit our response to the various issues and questions raised in the consultation paper as follows:

Q 1. What components of Interconnect Usage Charge (IUC) should be reviewed?

A 1. The components of the IUC regime which warrant a review; would include both op-ex related charges such as origination charges, transit charges and termination charges as well as charges like port charges and other facility charges. Importantly, to sustain competition in all segments especially the long distance segment both ***termination and origination charges need to be mandated based on costs.*** In case of carriage charges we have already seen that due to the available flexibility of ceiling charge most of the NLDOs have been able to on pass the benefit of reduction of cost to the end user, resulting in significant growth in traffic volumes. The ceiling for carriage charges is reasonable and if the Authority deems fit may be evaluated in current context. However, we would strongly advocate maintaining the same ceiling for carriage rates because the ceiling was proposed by the Authority in 2006 and is based on fairly recent assessment of associated costs. The ceiling has enabled players to offer market based charges between Rs. 0.34 to 0.65 per minute and this range makes it possible for long-distance operators to assimilate cost of carriage on high cost codes as well as low throughput codes.

Further, the Authority vide the recommendations issued on 14th Jan 2009 for sustenance of growth of VAS sector, has already acknowledged the requirement of unbundling provision of access from provision of services. The Authority can further strengthen fair play in the sector by implementing provisions of IUC to be made applicable in case of VAS also such that origination and termination charges are regulated and the margin is shared on the basis of work done principle and IPR valuation.

The cost considerations especially for the origination cost should also take into account unbundling of cost elements and relevant metrics should be set to discount or add costs based on the level of work being done by interconnecting operators. At this point we invite reference to the guiding principles as promulgated in the 1997 WTO (World Trade Organization) Agreement on Basic Telecommunications where non-discrimination, transparency, and the availability of reasonable interconnection terms, including cost-oriented rates and unbundled access, from "major suppliers" have been suggested as the key aspects which need to be looked at.

In the consultation process which ensued the review of IN services and provision of calling cards by long distance operators/Carrier selection it was clearly identified that more than the number of stakeholders the unbundling of elements specially the access can bring about phenomenal leverage to end customers resulting in a truly competitive market and free choice to the end customer. It may be pertinent to take this opportunity in this review and de-link access to customers from provision of services. Only when the customer can exercise choice of selecting service provider separately from the network provider can the real essence of universal service and mass propagation of telecommunication be achieved. It may be seen that the Authority has already taken similar steps in case of provision of CLS access as one of the examples where the network and service provider have been clearly segregated by implementing unbundling of elements. Mobile Number portability also is another example where
though to a limited extent unbundling of number from the network provider is being proposed.

Q 2. In view of the details provided in the paper, please give your opinion whether TRAI should continue with the existing methodology of fully allocated cost with appropriate assignments for termination charge or changeover to LRIC or its variant. Please provide full justification.

A 2. We suggest continuation of the existing costing methodology. The existing methodology and principles as prescribed in IUC regulation dated 24th January 2003 and 29th October 2003 by TRAI after comprehensive consultation with all the stakeholders has established a global benchmark in the management of interconnection regime in the telecom sector. We would like to humbly submit that the existing methodology and principles for working out the interconnection usage charges holds good even today and there is no rationale for bringing about a change in this especially so when this methodology is now globally accepted practice , time tested over a period of 5 years in a multi-operator scenario and has withstood all the legal challenges and has provided solution to all the commercial inter operator issues in respect of interconnection charges.

Q 3. Should termination charge be strictly 'cost-based' or should the principle of 'cost-oriented' be applied taking into account other affecting factors? Give reasons in support of your answer.

A 3. We would suggest taking a cost oriented approach and assimilating the same with the Model adopted by the Authority in 2003 to arrive at suitable estimates for all the IUC components. The suggested approach would enable estimation of costs taking into account paybacks for the investments as well as allow the cost calculations to be based on an efficient operator's model without incidence of unviable costs on the end consumer. As also commented earlier, we find no reason to change existing methodology in view of its evident success achieved over the past 5 years.

Q 4. In the absence of cost data for value added services, how should the revenue of such services be taken into account for determination of termination charge?

A 4. It can be argued that provision of VAS would include the additional cost of running applications and hardware platform, however, the underlying network being used for delivery of services continues to be the same as being used for provision of basic services. It may also be seen that in the current market scenario for most of the operators the provision of VAS is earning them premium above the basic services while typically it's the technology enabler or the III Party provider who is bearing the cost of running the applications. Effectively this means that the service provider is able to realize higher revenues out of the same underlying network the cost of which has already been accounted for in the normal termination charges. We suggest that VAS revenues should be certainly taken in to account while arriving at the termination charges

Q 5. Are asymmetric termination charges justified? If yes, which of the following should be the basis

i. Existing service providers vs. new entrant

ii. Urban lines vs. rural lines

iii. Mobile termination charge vs. fixed termination charge

Give justifications for your answer.

A 5. It is evident that the cost of termination is a factor of the type of network deployed and the volume of traffic being carried on the network primarily. Considering the different volumes in each segment and the different cost structure an asymmetric termination charge may be justified going forward. However the consideration of the same can only be limited to only the type of network i.e. whether terminating network is mobile or fixed network.

We do not find any justification of asymmetric charges between existing and new operators. Our comments are based on the following:

- It may be seen that since last 5 years a number of new licensees have become operational and have been able to grow in the market with the existing IUC regime .With the new IUC expected to be lower than what was prevailing during last 5 years there may not be any justification for having an asymmetric IUC regime for new licenses ..
- Data as reported by the Authority for period as late as 2007-08 also suggest that return on investments in healthy for the mobile sector.

- The current Teledensity of ~ 30% indicates significant potential for new entrants to generate sufficient business and earn reasonable return on investment.
- Existing operators have made investments at a higher cost over while for the new entrants the cost of deployment would be significantly lower.
- New initiatives planned by DOT and TRAI like mobile number portability expands the opportunity for new entrants to address customer acquisition uniformly even in significant market segments
- The primary business for the operators should not appear to be earning revenue out of termination but to provide services to its own subscribers.

Eventually over a reasonable period of time new entrants would be in a position to achieve scale of operations and enjoy the benefit of reduced costs. The Authority has pointed out that the decisions to review termination charges cannot be based on individual operators' sustenance and the prime consideration for the universal regime has to be affordability of telecom cost for the end user. The cost based methodology adopted by the Authority so far has resulted in affordable tariffs combined with equitable remuneration to various stakeholders as well as provided suitable incentive to any efficiently run operator to earn reasonable returns. If we practically evaluate the termination of minute in any network the level of work done is same irrespective of the network being of the existing service provider or of new service provider. Hence we see no justification to segregate termination charges on the basis of existing or new operators.

With regard to Urban and rural terminations, it may be extremely difficult especially in case of mobile operations to unambiguously differentiate Urban and rural lines. By virtue of the inherent nature of mobile service provisioning the same set of network elements may be involved to service both the urban and the rural areas. This may give rise to situations resulting in objections as well as disputes. Moreover, sufficient provisions are encapsulated in the existing USO regime and IUC regime by way of funding the roll outs as well as discounted revenue share on AGR of rural services which result in suitable compensation for the cost incurred in provision of rural lines. Hence we see no justification to segregate termination charges on the basis of urban vs. rural lines.

It may be seen that economy of scales witnessed due to growth in the subscriber volumes would have resulted in substantial reduction of cost of operations especially in the Mobile services. We would suggest to evaluate asymmetric charges for termination into Mobile network based on latest cost evaluation including the impact of substantially increased traffic volumes. The Mobile termination charges have significant ground to be reduced. Even the Authority's estimates suggest substantial reduction is possible in MTC.

Similarly we would recommend again a cost based approach to be followed for estimation of fixed termination charges after carefully segregating and working out the apportioned costs for mobile and fixed wireline networks..

Due to the differential cost of roll outs, opex to run various type of networks, traffic patterns etc, asymmetric charges may be considered, if justified as per costing, for Mobile vs. fixed termination.

There appears to be no other classification for justifying asymmetric termination charges which can be implemented in an equitable manner.

Q 6. Should the existing practice of applying the same principles and methodology for calculation of fixed and mobile termination be continued? If not then what should be the methodology for fixed and mobile termination charges? Give full justification.

A 6. We would suggest adopting the same cost based methodology to estimate the fixed and mobile termination charges. The existing methodology is based on the two fundamental principles of work done and cost of network elements. The two principles are equally applicable to both fixed networks and mobile networks. While the fixed and mobile networks may differ in terms of network elements, architecture etc, the principles of cost estimation would uniformly apply on both set of networks.

Q 7. Explain in detail the impact of the proposals being submitted by you for mobile and fixed termination charge on tariff and why?

A 7. We see either no impact on the tariff structure or potentially increased benefit being on-passed to end user due to the reduction in termination charges. This is based on the following facts:

- Existing tariff plans in some form or the other already account for differential charging of various segments of calls namely, on-net, off-net to various mobile networks, off-net to mobile networks of BSNL/MTNL and off-net to fixed line
- Current traffic patterns estimates indicate almost 75% termination of call into mobile networks
- This termination also accounts for all Fixed to mobile termination, any reduction in termination especially reduction in MTC will result in significant leverage to provide better tariffs to the end user of both mobile as well as fixed line.
- This will result in appropriate price elasticity and growth in traffic eventually resulting in higher revenue for the operators and benefit to the end user.

Q 8. Are asymmetric domestic and international termination charges justified? If yes, then whether international termination charge should be fixed higher/lower than domestic, should be on reciprocal basis with other countries or left under forbearance? Give justifications.

A 8. There is no justification of asymmetric domestic and international termination charges. It is evident the level of effort required to terminate any call is exactly the same for access networks irrespective of the nature of call. Since the adopted IUC regime clearly follows a cost based or cost oriented approach, it would be really surprising to see any plausible justification for asymmetric termination charges for domestic and international calls.

The settlement rate (“SR”) for India is comprised not only of the termination charge but also of carriage charges payable to NLDO as well as other components of costs like revenue share etc. In addition to the above prior to October 2008, ADC was also included in the SR. The change in SR primarily has been due to reduction of ADC and reduction of carriage margin of the ILDOs. It is also a fact that incidence of ADC resulted in grey market activities and situations of bypass of security monitoring facilities in such call termination. ADC as component of IUC was seen by all the stakeholders currently demanding higher ILD termination charges as one of the biggest factor contributing to grey market. Asymmetric termination charges have all the more potential of abetting and encouraging growth of grey market as this will again give rise to arbitrage for a grey operator to flourish. The potential arbitrage in such situation can exploited by unscrupulous elements to terminate calls and pose a security threat. The same needs to be necessarily avoided.

In case of lower international termination charges a similar grey market can potentially result in NLD calls being routed as grey calls which would be further damaging to the legitimate operators, contravention to the license terms and a loss to the revenue share to the government itself.

Some operators have argued that the out-payment of Indian operators is 10 times the current termination charges however; the same is incorrect and also discounts the fact of traffic balance between India and other geographies. The contention raised does not take into account the ratio of Inbound to outbound calls. The ratio is estimated to be in the range of 3: 1, which means for every 1 minute originated in India there is typically 3 minutes being received inbound. It is evident due to the inbound to outbound ratio the overall settlements between the Indian operators and foreign operators are on even parity. Hence the argument is not justified.

The cost of termination of calls to Rest of World (RoW) varies from region to region. A major portion of this cost is the Termination charges payable to operators in a foreign country. Only a small portion of the total cost is towards carriage of such calls from India to RoW by an International Long distance carrier. In view of above, the cost of termination of calls to a country outside India varies depending upon the regulations in that country, the level of development/network deployment, Tele-density, etc. The the level of competition in a particular country also impacts the costs of termination to that country. As more and more markets open up to competition worldwide, the costs for termination of calls to RoW will keep declining. There has been a significant drop in these costs in different countries over the last 5 years. The benefit of this drop in cost of termination has also translated to Indian consumers in the form of lower tariffs for international calls over the last 5 years. This has also led to a healthy growth of the outgoing international calls from India and there is not much change in the Inbound to Outbound ratio of India's traffic.

With the consistent drop in the rates worldwide, the access operators in India have a sufficient margin to drop customer tariffs for international calls further. The customer tariffs can drop further with the entrance of new operators, increased competition, MNP, and introduction of CAC/CPS or other measures like Calling cards by Long Distance operators. These measure as and when taken by the Authority would lead to greater competition and benefit the Indian consumer.

It is argued by some operators that the Mobile termination costs particularly in Europe are high as compared to India. While this is true, it also needs to be kept in mind that these are fairly saturated markets where licences were acquired by operators at steep prices. Further, the costs of termination of international calls in these countries is the same as any other call that is generated locally. As such, there is not much scope for arbitrage or grey market. While this is not true in Indian context, the approach of keeping artificially high costs of termination for international incoming calls to India is likely to distort the market which is in a phase of rapid growth and lead to mushrooming of grey market and associated security issues.

It is pertinent to note the drop in costs of termination of international calls in different countries world-wide, including large markets like USA and China. The International termination price trend in most of the geographies, including China, has considerably come down and the benefit of same has been on passed to the access operators. However the key issue is the ILD tariff available to the end user in India where typically the Access operators are generating margins as high as 400% which has been a restrictive factor in allowing growth of ILD Outbound traffic from India.

We strongly feel that mandating higher termination charges is a retrograde step from being an open market telecom regime to a monopolistic restrictive market. In the current scenario termination charge when Indian telecom operators as well as regulations are becoming globalized and contributing to the building up a strong brand image for India , such a step has a potential to tar the good work undertaken by the Authority and the DOT over the last 5 years.

With reference to reciprocal arrangements of termination charges with different world regions/countries is again a step in backward direction and has practical limitations. Globally the International termination traffic is highly competitive domain and is impacted by even minuscule price changes such as even US 0.1 cents. Moreover all carrier across the globe apart from direct routes have created multiple interconnects via other countries or world region. The expansion of IP networks across the globe also makes is possible for calls to be routed on multiple routes and increased degree of flexibility. In such a scenario, it may not be feasible to have higher termination charges from one country than the others since it would result in the traffic being removed from direct interconnects of Indian ILDOs and routed through other transit operators from where the termination charges to India are lower. This would not only impact quality of service of such calls but also concentration of traffic termination from regions where the reciprocal rate to India is the least. In such case the whole purpose of ensuring higher termination charges itself would be totally defeated and potentially it may give rise to security issues due to probable CLI masking by the transit operators.

Q 9. What should be the ceiling of carriage charge for long distance calls?

i. Maintain at the same level

ii. Increased/ decreased on the basis of current data

iii. Higher ceiling for remote/ rural areas and one ceiling for rest

Please give sufficient reasons with data in support of your answer.

A 9. The current approach of IUC to maintain a ceiling on carriage charges has resulted in significant flexibility in inter-operator settlements and promoted competition. It has eventually resulted in growth of NLD traffic by share of the cost reduction being on passed to end consumer. We suggest maintaining the ceiling at the same level.

It may be noted that the carriage charges are one of the other component apart from ADC which have been reviewed in line with the latest available trends in the year 2006. The ceiling proposed by the Authority in 2006 were based on sufficiently latest data and as observed by the Authority the market driven carriage charges still continue to be in the range of Rs 0.34 per min to Rs 0.65 per min depending on multiple aspects. The ceiling of 65 paisa provides for a reasonable range to assimilate cost of carriage on high traffic routes as well as absorb cost of low throughput routes. In the event the ceiling is reviewed downwards, it might result in impact on return on the low throughput routes while on the other hand a higher ceiling will potentially result in unfavorable tariffs for the end user. The current ceiling sufficiently provides for avenues to generate reasonable margins on all segments including remote segments on a weighted average basis.

Q 10. Which of the following options should be the TAX transit charges for intra SDCA transiting?

- **i. Maintained at the same level**
- **ii. Left to forbearance**
- **iii. Increase/ decrease on the basis of current data**

Please give sufficient reasons with data in support of your answer.

A 10. The TAX transit for intra SDCA transiting should also be reviewed in line with the cost oriented methodology suggested earlier.

Q 11. What should be the transit/ carriage charge from LDCA to SDCA?

- **(a) No need to specify separately**
- **(b) Under forbearance**
- **(c) Increase/ decrease on the basis of current data**

Please give sufficient reasons with data in support of your answer.

A 11. It may be seen that this segment of transit still is uncompetitive due to restriction on NLDOs to carry this traffic despite the NLD License allowing such calls to be carried by NLDOs by entering into a mutual agreement with originating service provider. Many NLDOs have created significant network and have the potential to offer LDCA to SDCA transit to desiring operators. In order to facilitate the same we propose a ceiling of Rs 0.20 per minute or lower for this stream and allowing all NLDOs to handle such traffic. Availability of multiple options and routing choices will result in suitable benefits to be accrued to the end subscriber by way of reduction of cost of termination of Intra-circle calls which eventually can be passed on to the end customer.

Q 12. India is preparing for launch of 3G mobile services. Which of the following option would you consider best? Give reasons, practicality and method of implementation of your choice.

- **(i) 3G termination charge same as 2G termination charge**
- **(ii) Forbearance of 3G termination charge**
- **(iii) Higher or lower 3G termination charge?**
- **(iv) Should be considered at a later stage?**

A 12. In 3G scenario it needs to be seen what are the kind of services are introduced by the 3G operators. Since 3G implementation has just started, the market needs further maturity and time to establish norms for handling of such traffic. For roll out of 3G services, the cost implications as well as application running on the network might be of different nature. Not only 3G applications like video calls etc require origination and termination spectrum it will also need intermediate networks to be appropriately provisioned to support such applications. Implementation of 3G IUC will require a thorough and probably a separate consultation so that all stakeholders involved in propagation of the services are suitably compensated. Moreover, existing 2G operators who are able to win 3G spectrum might even use it to provide voice services. All these inter-relations needs to be studied in detail based on experience in various other countries which have implemented 3G and subsequently a mechanism /regime to be identified which can suitably address the interconnection scenario in case of 3G. We suggest that the 3G termination charges should be considered at a later stage through a separate consultation. However, in the interim to facilitate carriage of such traffic arising due to some of the 3G operators becoming operational prior to determination by the Authority we suggest implementing the provision of IUC applicable for 2G services.

Q 13. New developments like WiMax, HSPA, FMC, NGN and further advancements in access technologies are expected to complicate the termination scenario further. What should be done in the current review to take care of these future developments?

A 13. We suggest considering the impact of these developments at a later date as these are still in nascent stage of development. However any consideration on termination in future should be technology agnostic.

Submissions Summarized

1. Origination, termination, port charges and other charges etc need to be reviewed. Carriage charge ceiling may also be reviewed however, we suggest maintaining the current ceiling.
2. The current approach of IUC to maintain a ceiling on carriage charges has resulted in significant flexibility in inter-operator settlements and promoted competition. It has eventually resulted in growth of NLD traffic by share of the cost reduction being on passed to end consumer. We suggest maintaining the ceiling at the same level as it was fixed only in 2006.
3. The TAX transit for intra SDCA transiting should also be reviewed in line with the cost oriented methodology suggested earlier.
4. LDCA-SDCA transit should be allowed to all NLDOs with a ceiling charge of Rs 0.20 per minute.or lower
5. The Authority should continue with the approach adopted in 2003, as the same is time tested and proven.
6. We would suggest taking a cost oriented approach and assimilating the same with the Model adopted by the Authority in 2003 to arrive at suitable estimates for all the IUC components.
7. We suggest that VAS revenues should be certainly taken in to account while arriving at the termination charges whereby the Authority may like to consider reduction in of total cost of termination proportionate to the revenues accrued through VAS services.

8. Due to differential cost of roll outs, opex to run various type of networks, traffic patterns etc, asymmetric charges may be considered for Mobile vs. fixed termination if the same is justified based on the costing. There appears to be no other classification for justifying asymmetric termination charges which can be implemented in an equitable manner.
9. We would suggest continuing with the same cost based methodology to estimate the fixed and mobile termination charges.
10. We see either no impact on the tariff structure or potentially increased benefit being on-passed to end user due to the reduction in termination charges and suggested methodology of termination charges.
11. There is no justification of asymmetric domestic and international termination charges. It is evident the level of effort required to terminate any call is exactly the same for access networks irrespective of the nature of call. Since the adopted IUC regime clearly follows a cost based or cost oriented approach, it would be really surprising to see any plausible justification for asymmetric termination charges for domestic and international calls.
12. We suggest that the 3G termination charges should be considered at a later stage through a separate consultation. However, in the interim to facilitate carriage of such traffic arising due to some of the 3G operators becoming operational prior to determination by the Authority we suggest implementing the provision of IUC applicable for 2G services.
13. We suggest considering the impact of the developments like Wimax, NGN HSPA etc at a later date as these are still in nascent stage of development. However any consideration on termination in future should be technology agnostic.