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January 30, 2009

Shri Lav Gupta
Principal Advisor (FN),
Telecom Regulatory Authority of India
Mahanagar Doorsanchar Bhawan
Jawahar Lal Nehru Marg (Old Minto Road)
New Delhi – 110 002

Subject: Consultation Paper on Review of Interconnection Usage Charges

Dear Sir,

At the outset we appreciate and welcome the Authority's consultation paper on review of IUC at this juncture. We feel this is the right time to review and reduce the termination, carriage and transit charges to their cost levels in line with the existing tariffs, MoUs and subscriber growth rates. This review will facilitate the removal of an artificial arbitrage that currently exists in the various IUC components and will maximize subscriber benefit. We would also request the Authority to further look into some anti-competitive practices exercised by some existing incumbents in mobile telephony markets.

With reference to above please find enclosed our comments and point wise response to the consultation paper on Review of Interconnection Usage Charges dated 31st December 2008.

We hope that the Authority will consider our views and comments enclosed while, reviewing Interconnection Usage Charges

Thanking you,

With regards
For Datacom Solutions Private Limited

For Authorised Signatory

Contact Person:-

Shri K L Jain, Advisor, Datacom Solutions Pvt Ltd, 4th Floor, 248, Udyog Vihar Phase – IV.

Enclosed: As above

Datacom Solutions Response to TRAI Consultation paper on Review of IUC dated 31st December 2008

Comments on IUC Review

Principle, Cost-Models and Methodology

Existing methodology and principles hold good even today when this methodology is now global accepted practices. However, the interconnection charges needs to be reviewed and reworked. Based on growing competition, an exponential increase in subscriber numbers, tremendous usage, impact on the input cost etc. has now created the right environment for a total review of IUC charges which includes carriage, transit and termination charges.

The current market scenario is under:

The total overall volume of traffic i:e; minutes of use per network have also increased as noted in the recent TRAI publication on Performance Monitoring Indicators for July to September 2008 quarter. The total minutes of use on wireless networks per month are approx 143 billion as of September 2008 (315 million subscribers in Sep 08). This is phenomenally high compared to 2003, when the IUC regulations were introduced.

The NLD traffic has increased in total volume since 2006 IUC review when the ceiling of 65 paise was introduced. The total NLD traffic volume in MoUs was approximately 7.9 billion minutes per month in September 2006 which has now more than doubled to 19.25 billion minutes per month as of September 2008.

Need to Review Carriage Charges

1. In its Telecommunications Interconnection Usage Charges (Sixth Amendment) Regulation dated 23rd February 2006 the Authority emphasised that its focus to enable lower domestic prices had given an impetus to domestic subscriber growth.
2. Further, given the move towards uniform long distance charges and a greater momentum towards competition in the NLD segment, it had decided to mandate only a single ceiling carriage charge, which was distance neutral.
3. For arriving at this, TRAI had used the cost data of several long distance service providers for the year 2004-2005 and arrived at an average cost of Rs 0.52 per minute for carriage charges to which it had added a mark up of upto 25%.
4. In May-June 2008 there were significant reductions in the STD rates which were revised downwards from upto Rs. 2.65 per min to Rs. 1.5 per minute, providing a greater impetus for a clear reduction in the carriage rates. It is also relevant to re-iterate as in our previous submission *(copy enclosed)* that the current carriage rates continue to be in the range of 20 paise to 40 paise offered by most of the NLD operators, barring some that have taken an advantage of the high ceiling prescribed by hiking their rates for carriage yet kept much lower than the current ceiling of 65 paise.
5. The total overall minutes of use on NLD per month have more than doubled since the last review as noted in the recent TRAI publication on Performance

Monitoring Indicators for July to September 2008 quarter compared with a similar report for July to September 2006 Quarter.

It may be noticed that even in 2006, carriage charges were significantly higher than costs.

The country has seen a huge reduction of long distance call rates between 2006 and 2008 but the ceiling on carriage rates remains at an earlier higher level.

It is relevant to highlight here that the prevailing average carriage rates being offered by various long distance carriers range between Rs 0.30 to Rs 0.40 per minute. In fact, some operators have been offering even rates as low as Rs 0.20 per minute. These are well below the TRAI ceiling rate. But the recent incident of some dominant long distance carriers doubling their offered carriage rates overnight is exploitation of the TRAI ceiling rate.

In light of the above and the fact that once again this sector is witnessing the entry of many new operators, we would request the TRAI to kindly take a fresh look at creating an enabling environment to protect the interests of new entrants – since existing incumbency levels today are huge. By creating conditions for new entrants to survive in the current market scenario of lowest ARPU's in world and fast ascending saturation in subscriber growth the Government will also fulfill its own objectives of increasing competition, rapid deployment / penetration of wireless networks across the country for which new licenses were issued in 2008.

Termination Charges

In the IUC Regulation of 2003, TRAI had made the following observation on cost of terminating calls:

> 'Detailed examination of costs, minutes of usage and subscriber numbers of various operators indicated that the cost of terminating a call ranged from Rs 0.23 to Rs 0.26 per minute. But TRAI had decided to retain a final price level at a higher rate of Rs 0.30 per minute.'

This rate prevails even today.

The Need to Review Termination as well as Transit Charges

The case for a review of termination charges five years after they were set is very strong given the rapid expansion of networks, better utilisation of capacity, phenomenally higher minutes of usage, and much higher number of subscribers utilising the same network resources.

SMS Termination

Some incumbent MNOs have included SMS termination charges in their agreements with new entrants and additionally charges for using CCS7 signaling link for SMS. While this is not a standard industry practice, all existing service providers do not levy such charges on each other, the current billing mechanism for SMS is bill and keep. Levy of such charges on new entrants is discriminatory and extremely uncalled for and highly

detrimental to the growth of any new entrant in the current market. This has been proposed for new entrants to set them back under the guise of forbearance on SMS IUC. SMS IUC though is under forbearance however, if at all usage charges proposed must and should be on cost basis. We request the Authority to intervene and stop such anti competitive practices by such incumbent MNOs and mandate Bill and Keep arrangement for SMS.

Call Termination

It is widely acknowledged that a careful examination of today's costs would clearly allow for a significant lowering of call termination costs. The disadvantage would once again be for the new entrants. Artificially high termination rates (not in line with actual costs) would weigh heavily against them because of reasons of network dynamics and skewed traffic pattern.

Transit Charges

There is a similar requirement to reduce the prices of calls being transited through another network. And reduce such transit charges to cost based levels. Since, TRAI has not explicitly specified the transit rate, the prevailing rates in the market are fixed at Rs 0.19, but there is scope for a significant reduction of this in line with lower termination rates.

Grounds

1. The Price Advantage to Incumbents

Incumbents with significantly higher subscriber bases would find it easy to out-price new entrants through differential tariffs for on-net and off-net calls – enabled in large part by the higher than cost termination rates.

The logic is simple: it is natural that a mobile operator with a proportionately larger subscriber base attracts a larger proportion of incoming calls. In such a case the new/smaller operator has to bear the burden of higher payouts in termination costs. This can easily be established by TRAI through an examination of the IUC payouts to the big players by others.

Typically, the top four market players would account for anywhere between 70% to 90% of termination charge receipts – a great disadvantage for new entrants who would only be paying out.

This would be a serious pricing advantage for the incumbent which new entrants would be unable to match. Therefore, today's high termination charge (compared to the actual cost) would be a deterrent to new operators.

Apart from bringing new entrants near at par with existing MNOs, one of the immediate benefits of lowering termination and transit rates would also be the reduction in per minute call rates for customers across the spectrum. This would help in making the service more affordable to the masses.

2. Cost Disadvantages to New Entrants

Today with over 347 million wireless subscribers, the existing MNOs enjoy huge incumbency advantages – of price, market presence and market power. The cost advantages too are overwhelmingly in their favour because of their already existing infrastructure – be it offices, towers or right of way. New operators would have to pay a high price to replicate this infrastructure. As also in roll-out in 1800 MHz band allotted to the new entrants would require significantly more infrastructure raising the installation cost higher and consequently delays in coverage.

The new operators have to contend with the following disadvantages and the associated higher costs:

1. As compared to the incumbent operators who have a spectrum of 6.2 MHz or more, the new operators are allotted only 4.4 MHz. The quantum of spectrum determines the extent of trunking efficiency that can be achieved while building the radio access network. While the new operators can achieve only around 4E per TRX, the incumbents can achieve as high as 5.25E to 6.2E per TRX. Thus the access building cost per Erlang is higher for new licensees than that for incumbents.
2. All the new operators are allocated spectrum in 1800 MHz. However, the power and emission is retained same as that for 900MHz. This leads to significantly increased BTS count (approximately 2-3 times depending upon the clutter) to cover the same area as compared to that required by the incumbent operators. The reduction in the foot print of the BTS reduces the inter-site distance, thereby increasing the allocation for BCCH to keep the interference under limits and forcing further reduction in the trunking efficiency.
3. Due to the limited capacity that can be realized from 4.4MHz, particularly in Dense Urban and Urban clutters and in single site towns, the transition from coverage limited design to capacity limited design would be reached much faster than those operators who have 6.2MHz or more as the capacity that can be supported by single BTS is much less (30E as compared 63E to 146E in case of incumbent operators). The new operators would be forced to resort to cell splitting much faster involving higher capex.
4. The increased BTS count has a direct bearing on the building of RAN backhaul thereby pushing the cost of realizing the access transmission upwards significantly.
5. The new operators are also required to incur huge opex for RAN due to the above limitations.
6. Thus the disparity caused by the extent and frequency of the spectrum has definitely upset the balance in favour of the incumbents. Therefore, the increased BTS count and lack of trunking efficiency makes the cost of building the access network much higher than the incumbents justifying asymmetric termination charges in favour of the new entrants Vs incumbent service providers and to restore the level playing field.

3. Cost of STD calls

The STD tariff of on-net calls by existing operators on many tariff plans is Rs. 0.50 per minute which includes origination, termination, carriage charges. Where as TRAI IUC ceiling rate works out to Rs. 0.95 per minute without origination and this manifests that

the ceiling rate as compared to the tariff mentioned above is exhorbitantly high, in fact near double. Even though it may be argued that such tariffs are in specific plans, the net effect could not be assumed as more than a total of 60 paise per minute charge for an STD call,

To have a level playing field between new entrants and incumbents / existing service providers some regulatory intervention is essential at least for the next few years. In fact, our submission is that this is the right moment in India for such intervention – both on the IUC and pricing fronts.

Reviewing IUC rates downwards will:-

- Prevent service providers from transferring cost on other service providers and promote fair competition. The arbitrage created by artificially higher than cost IUC and skewed traffic patterns towards incumbent MNOs with higher market share, would be rightly eliminated.
- Benefit the consumer through lower tariffs by lowering the IUC burden. It is a myth that tariff burden may increase with lower termination rates, in fact the competition in the market will ensure that lower IUC will result in even lower tariffs in our run up to 500 million subscribers by 2010 end.
- Bridge the digital divide: any decrease in termination, carriage and transit charges would make calls affordable particularly for semi-urban and rural subscribers.
- Integrated operators who have UAS, NLD/ILD and ISP licenses can allocate the total cost of the call conveniently between different laps of the call (between origination, carriage and termination) in such way the revenue is maximized and the payout to government is minimized. This is possible due to differential revenue share percentage being applied for access service providers and NLD service providers etc. Therefore, any higher ceiling fixed for any part in the overall laps of a call will certainly be exploited by the integrated operator thereby putting both the new operators and the government in disadvantage.

Basic Principles while reviewing IUC:

The basic principles should be the same as used earlier by the Authority i:e; promote competition and encourage all networks to compete on equal terms. Promote consumer interest and be one of the drivers for higher mobile penetration. Our Indian regulatory regime should be promoted as being among the most forward looking regimes globally.

The following principles may be considered while reviewing the termination charge:

- IUC rates should reflect the far higher base among the networks. This is possible only if fixed on actual cost basis.
- The Indian market today is a classic two-camp structure having differential costs and customer bases. Hence, IUC rates should reflect the differential customer base between existing and new licensees.
- Asymmetric interconnection rates have been adopted as a best practice in a large number of countries. Hence, the IUC regime should take into account the cost differential between existing MNOs and new licensees.

- IUC charges should generate incentives for all service providers to become more efficient, cost effective and competitive. Termination charges are one of the main costs for any new licensee. Higher than cost termination rates would give a competitive advantage to the existing players At the cost new licensees.
- Termination charge is not meant for revenue generation of any service provider. It is purely a cost compensation for call termination only in the CPP regime. Hence, 3G roll-out, Network expansion or even rural network roll-out should not be mixed with termination charges as these have different connotations. To be specific, termination charge is not for funding rollout. The Authority's decision in Feb 2006 to allow higher termination charge to continue has resulted in termination charges being 25% to 50% of the retail tariffs. The arbitrage available is being used to promote on-net traffic which is not conducive to healthy growth of competition.

Benefits of Introducing Asymmetric Charges:-

In a present scenario where the Government has issued newer licenses keeping in view more competition for benefit of the consumers and deeper penetration, it is necessary that new entrants are given some leverage to sustain in the market.

It is well known that the later a service provider enters any telecom market, the higher its initial investments need to be as a late entrant cannot spread its investment over several years and must immediately offer the same QoS and tariff as an existing MNO. The early MNOs made profits while the telecom market structure was a duopoly progressing into monopolistic competition and then Oligopoly. While, these early MNOs spread their investments over many years for gradual penetration, enhanced QoS and tariff reduction etc. the new entrants will have to start their services at this enhanced QoS, lowest tariff in the world, large product offerings and manage customer expectations which have gone severely high with the current market scenario and experience.

The sustainability of new licensees due to asymmetric charge will lead to increase in uniform industry profitability and the market for newer licensees will be incentivised, Further, it can act as a facilitator for reaching into rural markets and help in increasing access to telecommunications in rural areas. Whereas, uniform termination rates put newer licensees at a total disadvantage, as for a considerable time the traffic will be in the direction of existing service providers which have currently, 385 million subscribers already.

Our suggestion is that new players who have been awarded UAS licence in 2008 should be given a premium on termination rates, say 50% to 100% of the normal termination charge till they achieve 5% market share or a time-bound sunset clause may also be introduced.

Additional Comments

Interconnect Agreements and Port Charges

Although, port charges have not been included in the IUC review, the same also need to be reviewed considering that the coverage has to increase to un-penetrated areas in B & C Circles.

The issue of port charges has gained further significance in light of the fact that certain existing MNOs are now beginning to demand port charges from new licensees / entrants discriminately. This discriminatory treatment for demanding port charges is specifically directed at new licensees. A similar treatment has not been extended to previously existing licensees who have acquired new licenses in new service areas. Such a mal practice may lead to a severe distortion in the level playing field for New Entrants Vis a Vis existing service licensees, by loading additional unexpected costs on new licensees rendering them inefficient even before launching. We request the Authority to review such anti competitive practices in the market.

Summary of Datacom Solutions Response

1. IUC Charges require to be reduced drastically.
2. IUC Charges should be cost based and should not be a revenue tool for an MNO.
3. New entrants need to be given a handicap in termination charges to ensure their sustainability.
4. Review of Discriminatory and Anti-competitive practices of Existing MNOs towards new entrants.

In addition to our above comments please find below our point wise response to the consultation paper:

Q1. What components of Interconnect Usage Charge (IUC) should be reviewed?

As suggested in our comments above supplemented with available data Termination, Carriage and Transit Charges need to be reviewed downwards. Additional component of Asymmetric charges i:e; higher termination rates to New Licensees should be introduced.

Q2. 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.

As commented above every component of IUC should be reviewed and brought to actual cost levels. IUC should not be a revenue generating model for any MNO. It should be ensured that marginal cost of only those cost elements that affect termination, carriage or transit directly should be considered.

Q3. 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.

As explained in 2 above.

Q4. 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?

No Comments.

Q5. 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.

As explained above, Asymmetric charges are not only justified they are also an essential requirement to promote further growth and competition in the current market with existing and new service providers. The basis should essentially be Existing and New Service Providers, as that is where the change in the market condition has occurred.

In case of Urban and Rural asymmetric charges scenario, it may be first considered that a Universal Services Fund already exists, ADC has been removed and in the USO tender award for Rural blocks many service providers gained the tender award for rural blocks at 'Zero' service subsidy. Hence, additional subsidy opportunity by way of Asymmetric Charges need not artificially be created.

Q6. 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.

Same practice should prevail.

Q7. Explain in detail the impact of the proposals being submitted by you for mobile and fixed termination charge on tariff and why?

As above submitted in our comments.

Q8. 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.

Asymmetric charges between Domestic and International termination creates an artificial arbitrage opportunity again for grey market / illegal telephony operators. This was one of the main reasons for reduction and finally removal in the ADC applied on International Incoming calls. Hence, any review of such a situation should be conducted through a separate consultation exercise.

Q9. 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.

Our view is that carriage charge ceiling which was last reviewed in 2006 is outdated and not in line with the current rates prevailing in the NLD market place. The carriage rates as submitted above should be reduced significantly. The data and impetus for the same has been provided in our comments above, the same is reproduced below:

1. In its Telecommunications Interconnection Usage Charges (Sixth Amendment) Regulation dated 23rd February 2006 the Authority emphasised that its focus to enable lower domestic prices had given an impetus to domestic subscriber growth.
2. Further, given the move towards uniform long distance charges and a greater momentum towards competition in the NLD segment, it had decided to mandate only a single ceiling carriage charge, which was distance neutral.
3. For arriving at this, TRAI had used the cost data of several long distance service providers for the year 2004-2005 and arrived at an average cost of Rs 0.52 per minute for carriage charges to which it had added a mark up of upto 25%.
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In light of the above and the fact that once again this sector is witnessing the entry of many new operators, we would request the TRAI to kindly take a fresh look at creating an enabling environment to protect the interests of new entrants – since existing incumbency levels today are huge. By creating conditions for new entrants to survive in the current market scenario of lowest ARPU's in world and fast ascending saturation in subscriber growth the Government will also fulfill its own objectives of increasing competition, rapid deployment / penetration of wireless networks across the country for which new licenses were issued in 2008.

Q10. 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. Any charge between two operators should be on cost basis and not left to forbearance, so that no exploitation occurs.
B. Transit Charges should be reduced with immediate effect and it should not be an incentive for any service provider.

Q11. 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.

As mentioned earlier all charges including transit/carriage between LDCA to SDCA should be strictly on cost basis. The marginal cost of only call conveyance should be taken into account between LDCA and SDCA.

Q12. 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?

No Comments.

Q13. 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?

No Comments.