Answers to Questions brought out in TRAI at Chapter 7 in their Consultation Paper # 7/2007 on 'Review of license terms and conditions and capping of number of Access Providers.'

A. GENERAL COMMENTS

At the outset, I would like to point out that as per TRAI Act, the Authority has no role in matters relating to Mergers & Acquisitions (M&A), and other issues which relate to competition policy. They attract the provisions of relevant MRTP/ Competition Acts. Most of the developed countries such as Australia, Canada, US, Malaysia etc, have specific Trade Practices Act and other Anti Trust/Anti-Competition Acts. These acts are enforced by organizations like US Department of Justice / Federal Trade Commission, Australian Competition & Consumer Commission etc. I would like to submit, that the Authority should therefore advice the government to approach the competent authority i.e., Competitive Commission of India (CCI) / MRTPC in this matter. The commission has been given the responsibility of framing rules governing fair competition, and to prevent cartelization.

B. ANSWERS TO QUESTIONS

B.1 MERGER & ACQUISITION

Q1. How should the market in the access segment be defined?

A1. The so-called 'access services' are network transport services so that a subscriber is able to access network elements, using either a mobile handset or a fixed Customer Premises Equipment (CPE), typically a telephone set.

As far as the subscriber is concerned, it is either 'Mobile' or 'Fixed' service that he is getting, by paying the necessary subscription. The product or service offered to the subscriber by the UASL operator are quite distinct and separate, namely mobile telephony and fixed telephony. These two different products cannot be substituted for each other and therefore in economic terms their market segments are quite different. The market segment is not for access but for two distinct and different products or services, i.e., Fixed and Mobile. Therefore the intra-circle market should continue to be classified as 'Fixed' & 'Mobile'. Within the mobile segment, there is a case for further segmentation between fully mobile and limited mobile.

Q2. Whether subscriber base as the criteria for computing market share of a service provider in a service area be taken for determining the dominance adversely affecting competition, if yes, then should the subscriber base take into consideration home location register (HLR) or visited location register (VLR) data? Please provide the reasons in support of your answer?

A2. One of the most widely used quantitative method to measure 'dominance' or 'market concentration' is by the HHI index. It uses sum of the squares of percentage market share of the product or service. Another method to measure the power exercised by a dominant firm is the Learner Index, which is the proportionate difference between Price and Marginal Cost. Since it is too difficult to get accurate pricing information, most of the Competition Regulators place greater reliance on HHI, as rightly brought out in the Consultation Paper. Market share can be measured in terms of monetary

value, units of sales, units of production and production capacity. The market share in the context of the telecom market is the subscriber base, which is the only factor, which can be measured with some degree of accuracy. The subscriber base is the number of registrations in the Home Location Register (HLR) of the operator. Since there is a possibility to manipulate the HLR database with non-existent subscribers, this should be crosschecked with the VLR Data / EDR including billing records.

Q3. As per the existing guidelines, any merger/acquisition that leads to a market share of 67% or more, of the merged entity, is not permitted. Keeping in mind, our object and the present and expected market conditions, what should be the permissible level of market share of the merged entity? Please provide justifications for your reply?

A3. The existing guidelines of fixing such a high threshold, i.e., permitting Merger & Acquisition even beyond 67% needs to be reviewed and brought down. After opening of the mobile telephony sector for private sector participation in early 1990s, we had just two operators, i.e., a Duopoly regime. At present we have at least five operators in most of the markets. Therefore, the markets have evolved from Duopoly to tight Oligopoly. However, the market still cannot be called fully competitive. In such a market structure there are at least 5 or 6 comparable rivals with no significant barriers to entry and no single firm able to exercise dominance. Tight oligopoly is defined as a structure where the leading firms control 60-100% of market and significant barriers to entry prevail. Such conditions prevail in a number of mobile markets in India. There are a number of adverse effects of tight oligopoly in the market. Firstly, the net effect of interdependent strategies pertaining to Acquisitions, Mergers and Collaborations will be to increase aggregate industry concentration and to reinforce oligopoly behavior. Secondly, prices will not be cost based. Thirdly, the profit levels will be higher over time than under conditions of full or effective competition, or cost based tariff regulations.

By permitting Merger & Acquisition to the level of 67% of the market share, we may go back to Duopoly or Virtual Monopoly structure by increasing the power of the merged operator to influence price. This level should be reduced to 25%, which is defined as the level of Significant Market Power (SMP). In the UK, for the purpose of Fair Trading Act 1973, a monopoly situation exists, if at least 25% of the segment is controlled by a single person or firm, or by combination of firms (a complex monopoly). The definition of a 'dominant undertaking' at section 2 (d) of MRTP Act, 1969 is also in line with this UK definition, i.e., 25% control over the market

European Commission has also fixed 25% market share for classifying a company as SMP. Market 'Dominance' is a more extreme form of market power as it goes beyond SMP. In general, two factors are considered as very important in determination of market dominance. First and foremost is that the firm should have high market share and secondly, significant barriers to entry should exist into the largest market occupied by the dominant firms. Considering the fact that there are significant barriers for entry of new operators, due to paucity of spectrum, the lion's share of which has gone to the first movers, there is a strong case to lower the existing threshold from 67% to 30% which has been defined by TRAI as the SMP level in their new RIO regulations. No single operator should be allowed to go beyond Significant Market Power level, i.e., SMP. Instead of CR2 > 75%, the limit of CR4 should be fixed to this level in accordance with the best international practice as brought out at para 16 of Annexure III of the Consultation paper # 7/2007.

Q4. Should the maximum spectrum limit that could be held by a merged entity be specified?

a) If yes, what should be the limit? Should this limit be different for mergers amongst GSM/GSM, CDMA/CDMA & GSM/CDMA operators? If yes, please specify the respective limits?

b) If no, give reasons in view of effective utilization of scarce spectrum resource?

A4. Yes, as the quantity of spectrum held by the merged entity directly affects his system capacity and therefore ability to acquire additional subscribers, and therefore helps him in acquiring market dominance. Greater the quantum of spectrum greater is the economy of scope and scale enjoyed by the operator. Therefore, in the interest of greater competition & level playing field, there should be a spectrum cap for different types of mergers.

M&A should take place in the interest of the shareholders and consumers and not for hoarding of spectrum. Since the licenses are technology neutral and the operators are free to deploy any technology, i.e., either GSM or CDMA, the maximum limits as per license conditions should not be exceeded even after mergers i.e., 6.2 MHz & 5 MHz.

Q5. Should there be a lower limit on the number of access service providers in a service area in the context of M&A activity? What should this be, and how should it be defined?

A5. The expression Access Service Provider is a misnomer. A UASL operator does not give only access services to the subscribers; it also gives fully cellular service within a large geographical area such as Maharashtra or Madhya Pradesh. He erects not only the access segment of the network but also the core network. Through his network a subscriber also avails of long distance services, as NLD/ILD can not directly access the subscriber. In absence of Carrier Access Code, NLD and ILD operators can only be called 'carrier's carrier'. Therefore, it is time to unbundle the so-called 'Access Services' into fixed and mobile, in consonance with the best international practice. Nowhere in the world, we have a licensing regime called 'Unified Access'. We should not try to limit the number of these providers (fixed or mobile) by regulation. It should be only limited by the non-availability of scarce national resource, such as frequency spectrum or some essential facility, such as right of way. Every service areas should have at least three service providers of each type, i.e., Fixed & Mobile.

Q6. What are the qualitative or quantitative conditions, in terms of review of potential mergers or acquisitions and transfers of licenses, which should be in place to ensure healthy competition in the market?

A6. As brought out in the Consultation Paper, the HHI is a good qualitative measure of power of a firm to dominate a given market. It should be used in conjunction with the Learner Index. The Learner Index is the proportionate difference between price and marginal cost. The index has a value of zero under condition of perfect competition and it has no upper limit. A rough measure of the strength of market power is the price elasticity experienced by the firm. If demand faced by an individual firm is inelastic (i.e., elasticity less than unity in absolute value) the seller can always increase revenue by raising prices. Market power then exists. This can usually only

happen when the seller has a dominant market share. The Landes–Posner Index (LPI) takes into account not only the firm's market share but also elasticity of market demand as well as that of competitive supply (entry conditions) as indicated below.

$$LP = \frac{\text{Firm's Market Share}}{\text{Elasticity of market demand} + \text{Elasticity of competitive supply (entry conditions)} \times (1 - \text{Firm's Market Share})}$$

It is therefore considered superior to Herfindahl – Hirschman Index (HHI). It should be employed by the Regulators in addition to HHI, CR4 etc.

Q7. As a regulatory philosophy, should the DoT and TRAI focus more on ex post or ex ante competition regulation, or a mix of two? How can such a balance be created?

A7. The competent authority should focus more on ex ante competition regulation. In India, one stitch in time is better than nine. Once the firms violate the rules of the game and acquire dominance, it will be too difficult to force them to comply with regulations ex post. Therefore, all cases of Merger & Acquisitions must be analyzed in advance and only after approval by the competent authority, the Merger or Acquisition should be permitted. In the real estate business, the 'Sainik Farm' in South Delhi is a classic case of the failure of ex ante regulation. The DDA had no alternative but to regularize the gross violation of it's land regulations, by Builder's of the Sainik Farm. In case of M&A, clearances from competition regulator should also be a mandatory clause for ensure compliance to the license conditions in terms of 10% holding, spectrum and other license conditions.

SUBSTANTIAL EQUITY

Q8. Should the substantial equity clause (1.4 of UASL) continue to be part of the terms and conditions of the UAS/CMTS license in addition to the M&A guidelines? Justify.

A8. Yes. The substantial equity clause (i.e., 1.4 of UASL) should be retained in the license, in addition to the M&A guidelines. The purpose of M&A regulation is to prevent one firm from acquiring dominance in a given market. The substantial equity clause prevents collusion between different firms in a market, to dictate price by forming a cartel. In case the same promoter/owner has substantial equity in more than one firm in a particular service area, he can engage in anti-competitive conduct, by coordinating the actions of different companies owned by him and try to jointly dominate the market. Such action was historically indulged in by Steel/Rail trading companies in USA about hundred years back, which resulted in US Senate passing a number of Anti Trust Acts, and formulation of Anti Trust Policy, also called Competition Policy, in other countries. The objective of M&A guidelines and anti-trust policy are quite different. Both these conditions need to be retained in the interest of increasing the level of competition in the Indian telecom market.

Q9. If yes, what should be the appropriate limit of substantial equity? Give detailed justification.

A9. Existing level specified in the UASL, i.e., 10% should be retained.

Q10. If no, should such acquisition in the same service area be treated under the M&A Guidelines (in the form of appropriate terms and conditions of license)? Suggest the limit of such acquisition above which, M&A guidelines will be applied.

A10. Not applicable in view of answers against Q8 & Q9.

Q11. Whether a promoter company/legal person should be permitted to have stakes directly or indirectly in more than one access License company in the same service area?

A11. Yes. However, the stipulation of substantial equity not being more than 10% as per UASL should not be violated.

Q.12 Whether the persons falling in the category of the promoter should be defined and if so who should be considered as promoter of the company and if not the reasons therefore?

A12. Persons having equity of 10% of more in a company should be treated as a promoter.

Q13. Whether the legal person should be defined and if so the category of persons to be included therein and if not the reasons therefore.

A13. The legal person is defined in the company's act and the same is well understood in judicial parlance.

Q14. Whether the Central government, State governments and public undertakings be taken out of the definition for the purpose of calculating the substantial shareholding?

A14. In the interest of level playing field, central/state government and public undertakings should not be taken out of the definition for the purpose of calculating the substantial shareholding. They should be treated at par with other firms.

PERMITTING COMBINATION OF TECHNOLOGY UNDER SAME LICENSE

Q15. In view of the fact that in the present licensing regime, the initial spectrum allocation is based on the technology chosen by the licensee (CDMA or TDMA) and subsequently for both these technologies there is a separate growth path based on the subscriber numbers, please indicate whether a licensee using one technology should be assigned additional spectrum meant for the other technology under the same license?

A15. Although the licensing regime for UASL has now been made technology neutral, because of the legacy of the past and the fact that GSM and CDMA operators were given initial frequency allocation from separate frequency bands namely 800 MHz for CDMA, and 900MHz for GSM, the growth path for these two technologies are separate and at present based on subscriber numbers. Therefore licensee using one technology should not be assigned additional spectrum meant for the other technology

to avoid legal complications. As brought out at Para 4.10 of the Consultation Paper, initially 2 x 2.5 MHz spectrum in case of CDMA technology, and 2x4.4 MHz in case of GSM technology were given to the operators. Additional spectrum has been assigned to these two categories of licenses, based on technology specific subscriber base allocation criteria. However, the License agreement for UAS sets a maximum limit of 2x5 MHz and 2x6.2 MHz in respect of CDMA and GSM respectively. The allocation of spectrum beyond these two maximum levels for these two technologies should attract higher usage charges in terms of revenue share (say, 10 – 15%) to discourage inefficient use of a spectrum and its hoarding.

Q16. In case the licensee is permitted, then how and at what price, the licensee can be allotted additional spectrum suitable for the chose alternate technology

A16. Question does not arise in view of above.

For all new licenses such as for 3G & 4G services, spectrum allotment should be based on a transparent auctioning process in line with the best international practice. In Europe, a large number of European countries such as UK, Germany, Netherlands etc. have chosen the auction method to find out the true market value of this scarce national resource.

Economists have drawn an analogy with real estate for valuation of radio spectrum. Real estate or land is a scarce resource in metro cities like Delhi and Mumbai, where demand far outstrips supply. In such situations the allocation of this resource is invariably based on an auctioning process conducted by DDA, NOIDA, HUDA etc. in the NCR. The Administrative method suffers from an economic anomaly also call 'spectrum paradox' where even if user demands greatly exceeds supply, only a very nominal price, i.e., much lower than market price, has to be paid by the user for this precious resource. Such an economic anomaly is considered to be a standard recipe for inefficient usage of this scarce resource by top Policy makers & Regulators. Globally, it is now well accepted by Regulators & Policy makers that only if the operators pay the market price of the frequency spectrum based on the bidding or auctioning process, then only they will use this resource in an efficient manner.

Q17. What should be the priority in allocation of spectrum among the three categories of licensees given in para 4.16 of the chapter?

A17. Due to legacy of the past and to avoid legal complications, the existing two categories, i.e., GSM & CDMA should be maintained in case of M&A also. There should not be any third category of operators, i.e., GSM/CDMA as a consequence of merger/acquisition.

Q18. Whether there should be any additional roll out obligations specifically linked to the alternate technology, which the service provider has also decided to use?

A18. Since licensing is technology neutral, there should not be any rollout obligation specifically linked to a particular technology. The roll out obligations should also be made independent of the technology.

Q19. Lastly, as such service provider would be using two different technologies for providing the mobile service, therefore what should be the methodology for allocation of future spectrum to him?

A19. Such mergers should not be permitted to avoid legal complications as the growth path as per the existing license conditions are quite different.

ROLL OUT OBLIGATIONS

Q20. Should present roll out obligations be continued in the present form and scale for the Access service providers or should roll out obligations be removed completely and market forces be allowed to decide the extent of coverage? If yes, then in case it is not met, existing provision of license specifies LD charges upto certain period and then cancellation of license. Should it continue or after a period of LD is over, enhancement of LD charges till roll out obligations is met. Please specify, in case you may have any other suggestion.

A20. The roll out obligations should be continued in the present form till the frequency caps of 5 MHz for CDMA and 6.2 MHz for GSM are reached, in accordance with the existing terms & conditions of UASL. Thereafter it can be reviewed for 3G and 4G technologies for which a pure market driven approach for allotment of frequency is recommended. Once a pure market driven approach is adopted for giving frequency spectrum, then there is no justification for a roll out obligation which may oblige a network operator to erect costly network infrastructure in non-remunerative areas.

The TRAI had classified cellular mobile services as 'Premium' service in their Tariff Regulations of 1999. All Premium & Value Added Services, for which inputs are procured by the operator, by paying market prices, have to be left to market forces. Only basic services, i.e., Fixed Voice telephony (POTs) should be subsidized from the Universal Service Fund (USF) so that the operator can provide basic services to economically non-remunerable areas, i.e., rural / remote. In all developing countries only the basic services are subsidized and have a roll out obligation.

Q21. Is there a case for doing away with the performance bank guarantees as the telecom licensees are covered through the penalty provisions, which could be invoked in case of non-compliance of roll out obligations?

A21. Yes

Q22. Should roll out obligations be again imposed on the existing NLD licensees? If yes, then what should be the roll out obligations and the penalty provisions in case of failure to meet the same?

A22. In absence of Carrier Access Code (CAC) / Preselection, NLD licensees do not serve the customers directly. Therefore, there should not be any roll out obligation. In any case, since all LDCAs are well covered by the long distance network of the incumbent, i.e., the BSNL & a few others, the subscribers are not unduly handicapped. Re-imposition of roll out obligation, will give a wrong signal to the investors, about the stability of regulatory / policy making environment in India.

Q23. What additional roll out obligations be levied on ILD operators?

A23. No additional roll out obligations should be imposed on ILD operators. The reasons for the same are discussed in the answers to the previous questions.

Q24. What should be the method of verification of compliance to roll out obligations?

A24. The exiting method of measuring the strength of the signal in a given service area by technical experts of TEC moving in a vehicle, equipped with the requisite measuring instruments is quite adequate. The TEC team should go round the DHQs and should ensure 90% of the municipal limited is covered by the signals radiating from Base stations erected by the operator.

Q25. What indicators should be used to ensure quality of service?

A25. The existing Quality Of Service (QOS) regulations of TRAI, which stipulate certain norms for measuring QOS, Grade of Service (GOS) etc are quite adequate. However, in the long run even QOS will have to be left to market forces. The aim of the Regulators/Policy Maker should be to ensure adequate competition, which will take care of QOS also. Number Portability should be introduced in mobile services to further improve the level of competition & give the freedom to the subscriber, to change the operator, in case he is not satisfied with the QOS.

Q26. As the licensees are contributing 5 per cent of AGR towards the USOF, is it advisable to fix a minimum rural roll out obligation? If yes, what should be that? If no, whether the Universality objectives may be met through only USOF or any other suggestions.

A26. With government funding the rural infrastructure through USO, it is not advisable to fix a minimum rural roll out obligations.

Q27. In case of rural roll out obligation, whether number of BTS in a certain area a viable criterion for verification of rollout obligation?

A27. The roll out obligations should be in terms of basic fixed phones in public places, schools, hospitals etc as well, as rural households. The operator should employ the least cost technology i.e., fixed wireless, which consumes the least amount of frequency resource, to fulfill the roll out obligations. Roll out obligations should not be based on the number of 'BTS' in a certain area. Unless actual connections are given, a community or family does not benefit economically. Therefore mere number of BTS will be do. Instead of teledensity, which includes personal phones, house hold penetration is a better parameter for fixing roll out obligations in a rural area.

Q28. What should be the incentives and the penalties w.r.t rural roll out obligations?

A28. Scheme of incentives for basic service operators should be developed in place of penalties. Incentives like lowering the license fees could be thought of.

DETERMINING A CAP ON NUMBER OF ACCESS PROVIDER IN EACH SERVICE AREA

Q29. Should there be a limit on number of access service providers in a service area? If yes, what should be the basis for deciding the number of operators and how many operators should be permitted to operate in a service area?

Q30. Should the issue of deciding the number of operators in each service area be left to the market forces?

A 29 & 30 Since our objective is to promote competition, the regulator or policy makers should not place any caps on the number of service providers. The number should be left to the market forces. It can be limited by either non-availability of essential facility or a scarce resource such as Frequency Spectrum. Limiting the number of licensees by regulatory fiat, may lead to an economically inefficient use of spectrum. It can also discourage innovation. Another disadvantage is that the operator, who has already entered the market, will obtain a degree of economic power because of first come first served advantage of getting a lion's share of frequency spectrum, which will be anti competitive.

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