Bharti Airtel Limited's Proposed Response to TRAI Consultation Paper on Review of license terms and conditions and capping of number of access providers

MERGER AND ACQUISITION

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

a. We believe that the **market in the access segment should continue to be classified separately as fixed and mobile**. It is further submitted that **as this market is being defined narrowly,** the **permissible level of market share for a merged entity** should **continue to be prescribed at 67%.**

b. Our reasons and justifications in support of the above answer are as under :

i. The **fixed and mobile markets are not perfect demand substitutes** for each other as the usage profile and requirements of the two sets of subscribers are not the same. This has been recorded by TRAI in Para 2.22 of its Consultation Paper.

ii. The **aggressive growth is taking place in the mobile segment** while the growth in the fixed line is marginal. Going forward too, the growth is expected to come primarily from the mobile industry. In this context, it must be the **objective of M&A to determine whether the merged entity is able to exercise monopoly market power in the relevant segment.**

iii. While **there may be a growing interest in fixed-mobile convergence** as recorded by the Authority, it is submitted that **this is still not a reality**. Thus, it is desirable and warranted that for the present, the fixed and mobile markets should be classified separately and that this position may be reviewed later with the onset of fixed-mobile convergence.

iv. **If the market is defined as the entire access market**, then as noted by the Authority, there could be other problems in determining the dominance of the merged entity.

c. We also agree that the **mobile segment should comprise of cellular mobile & WLL(M)** subscribers while **fixed line should comprise fixed line and fixed wireless subscribers.**

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?

a. **Yes**, **subscriber base should continue to be taken** as the **criterion for computing market share** of a service provider in a service area **for the purpose of determining dominance.**

b. Further, the **subscriber base should continue to be considered as per the existing Government definition, which is based on Home Location Register** (in the case of mobile subscribers) **and Exchange Data Record** (in case of fixed line subscribers). **Reference to VLR subscribers is not relevant** in the present context and should not be used as the criterion for computing the number of subscribers for determining market share.

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 objective 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?

a. It is submitted that in light of the fact that the market is being defined separately as fixed and mobile separately, we believe that the **permissible level of market share for a merged company should continue to be prescribed at 67%**

b. The international practice is usually 3-4 mobile operators. In contrast, India has **at least 6-8 mobile operators in every service area** and the sector can be said to be intensely, competitive. It is thus submitted that, as long as there is adequate competition in the sector, there should be **little apprehension about the market share of the merged entity.** In fact the Authority has itself noted in Para 2.34 of its Consultation Paper that a high market share does not necessarily infer market power.

c. Moreover, **the lower limit of three operators** prescribed under the present guidelines **should be continued with.**

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 utilisation of scarce spectrum resource?

a. It is first submitted that the existing M&A guidelines (Clause 6) already provide that, "*consequent upon the merger of licenses, the merged entity shall be entitled to the total amount of spectrum held by the merging entities, subject to the condition that after merger, the amount of spectrum shall not exceed 15MHz per operator per service area for Metros and category 'A' Service Areas, and 12.4 MHz per operator per service area in category 'B' and category 'C' Service Areas. Subject to these limits, the merged spectrum will remain with the merged entity and would be treated as a starting point for further allocation and revision, as per the detailed Spectrum Guidelines to be issued separately*."

b. There is no doubt that **one of the most important factors** that will determine the success and growth of the industry pertains to the **timely availability of adequate spectrum to fuel the rollout and growth of networks.**

c. It is submitted that **whilst the spectrum allotment guidelines** provide for **spectrum upto 15MHz for GSM operators**, the **actual allotments** are **far below** the **eligibility levels**. The Authority has itself recognized (Para 6.42) that the **spectrum requirements of the existing operators** in various service areas is **more than the existing available spectrum**. Moreover, it has also been noted (Para 6.43) that even the **20MHz spectrum**, which is **likely to be released by Defence**, will **meet the requirement** of the **existing operators only upto December 2007**

d. Thus, **having laid down a target of 500 million** subscribers by 2010-11 and **700 million** subscribers by 2014-15, it is **extremely important** to **also have a clear roadmap on the availability of spectrum** to meet this objective / target. A **clear-cut roadmap** on spectrum will **enable the Government to plan the vacation and coordination of spectrum and also allow the operators to plan the growth of the networks**

e. The Authority too is aware of this imperative as it has noted (Para 6.49) that the Authority should **strive to provide transparency in terms of spectrum availability, nature of frequency bands, etc.**

f. The Authority has rightly noted (Para 1.10) that "*competition and steady subscriber growth by itself may not be sufficient to guarantee that the Indian telecom market will sustain the same phenomenal growth in the changed market scenario, thus making Regulatory and Policy intervention imperative to provide impetus at the right time. From the perspective of the cellular telephony market, there is a need to ensure a clear and stable regulatory structure, especially with regard to* ***spectrum policy****, investment norms, competition policy, and the licensing regime in the era of convergence. It is no doubt important to ensure that the regulatory framework is pre-defined and transparent to reduce risk and maximize the potential for growth.*"

g. It is submitted that any measures that create uncertainty in the market can have an adverse impact at this stage and could jeopardize not only the health and robust growth of the industry but also impact irreversibly the industry's ability to contribute to national telecom objectives.

h. The Authority would appreciate that in the current scenario, where there is no clarity on when the next level of spectrum will be made available to the operators, **we cannot afford a scenario where an operator is given excess spectrum with lesser subscribers in merged entity scenario and other operators are deprived despite their entitlement due to non-availability of spectrum**

d. **Thus, any review of the existing prescribed limit at the upward level should be done at the appropriate time** i.e. once a clear-cut roadmap on spectrum availability is issued by the Government. Once the roadmap is available and the Government is in a position to allocate the spectrum to the existing operators beyond 15MHz, the existing prescribed limit may be enhanced at upward level both for existing operators as well as in M&A cases, strictly as per subscriber linked criteria, to encourage the organic and in-organic growth simultaneously.

e. In light of the above, we request the Authority to retain the existing prescribed limit and enhance at upward level, once a clear-cut roadmap is issued by the Government, which meets the spectrum requirements of the existing operators beyond 15Mhz.

f. It is submitted that in **the case of a cross technology merger between GSM/CDMA,** the **merged entity must be required to choose its technology path** and it **cannot follow two growth paths under the same license / entity**.

g. This would be **in consonance with the present policy and licensing regime** of the Government which **does not permit the licensee to hold both GSM and CDMA spectrum** under the same license.

h. This has **also been the practice followed by the Government ever since the inception of licensing.** This is evident from the following :

i. **In 1994-95** when the first cellular licenses were issued, **GSM was the mandated technology** and CDMA was used by the fixed service operators to offer fixed wireless services.

ii. In 1999 **when technology neutrality was announced** and a GSM service provider **applied for CDMA spectrum**, the said application was **rejected on the grounds** that the **operators were technology neutral only within their allocated spectrum.**

iii. Furthermore, even when the **UAS licensing regime** was introduced in 2003, operators were allowed to **migrate to UASL only with their allocated / contracted spectrum**.

i. **In light of the above clear precedents and in consonance with the prevalent policy and licensing regime**, we believe that **in the event of a cross technology merger**, before approving the merger, the **merged entity must be required to make a technology choice** at the outset, but **may be given some time** by the Licensor **to migrate all subscribers to its chosen platform.**

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?

Yes. We believe that the **lower limit of three operators prescribed under the present guidelines should be continued** with.

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?

Following **key criteria for the M&A guidelines must be considered:-**

i. Treatment of fixed and mobile markets separately for the purpose of judging dominance of the merged entity
ii. Ensuring that the market share of the merged entity does not exceed 67% of the relevant market.
iii. That subscriber base will continue to be the criteria for calculating market share

iv. That the subscriber base will be calculated on the basis of HLR for mobile subscribers and EDR for fixed line subscribers
v. Ensuring that the M&A does not lead to less than three service providers in the service area
vi. That the spectrum caps should be uniformly applicable across all service areas.

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?

a. We believe that, **for the present, both DoT and TRAI should continue to adopt an ex ante approach to competition regulation** for mergers and acquisitions as the **industry is still not fully settled** and there are certain competition and consumer issues that can arise in such cases. It would thus be wise to take a prudent approach and continue with an ex ante approach to M&A for the present.

b. This will also **give greater transparency and clarity to the regulatory environm**ent.

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.

a. We are of the view that the **access market has still not fully settled and matured.** Under these circumstances, we believe that the **substantial equity clause** which has safeguarded **the industry against the anti competitive play of market forces**, must **continue to be part of the terms and conditions of the UAS/CMTS license**.

b. The above is in line with the Authorities views and observations that :

- *"The scenario in India indicates that the Indian market has not sufficiently matured…"* (Para 2.49)
- *"In the communication market, it is essential that healthy competition be maintained between service providers…" (Para 3.8)*

Thus, retention of this clause would be useful to prevent anti-competitive behavior and will allow for true diversity in the range of choices to the consumer.

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

In view of our above submissions, we believe that for the present, **the definition of substantial equity should be retained at the existing level of 10%**

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.

See answer to issue above.

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?

Q12. 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?

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

a. In this regard, it is first submitted that a **distinction may be drawn between a promoter who can use this equity to exercise operational or managerial control** over another company and **a financial non-strategic investor**.

b. The **current License Condition** under Clause 14.4 (ii) states that "**A promoter company / legal person cannot have stakes in more than one** Licensee **Company for the same service area**." We believe that **this provision may continue to be retained** in the License **for the time being,** till **the industry fully settles and matures**.

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

No. There should be **no such waiver / exemption** for Central Government, State Government or PSUs for the purpose of calculating substantial shareholdings. Whatever are **the provisions of license** in this regard **should be applied equally to all stakeholders so as to ensure level playing field.**

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?

I. **Crossover Allotment of Spectrum Not Permissible Under Present Regime**

a. **It is our firm view that crossover allotment of spectrum is not permissible under the present UAS license**, i.e. a Unified Access Licensee offering Mobile services under CDMA based systems cannot be allotted GSM spectrum also to offer Mobile Services, under the same UAS license and vice versa.

b. This is **clearly established by a composite reading of** various **terms and conditions of license** and **other related documentation**

Provisions of License

i. The **UAS License contemplates only one single network** to be set up by the Licensee for provision of Mobile Service. In case of **cross over of allotment** of spectrum, the same would **tantamount to the Licensee running and operating two independent networks** for provision of Mobile Service one GSM and another CDMA, which is **not permissible under the UAS license.**

ii. As per the existing license regime, **the applicant company first acquires the license** upon payment of a specified entry fee and **then exercises its technology choice**. Clause 43.1 of the UAS License provides that

> *"A **separate specific authorization** and licence (hereinafter called WPC licence) shall be required from the WPC wing of the Department of Telecommunications, Ministry of Communications **permitting utilization of appropriate frequencies / band** for the establishment and possession and operation of Wireless element of the Telecom Service under the Licence Agreement of Unified Access Service under specified terms and conditions including payment for said authorization & WPC licence. Such grant of authorization & WPC licence will be governed by normal rules, procedures and guidelines and will be subject to completion of necessary formalities therein."*

Thus **when a license is acquired, the same is technology neutral** and the licensee has the **freedom to choose either the GSM or the CDMA platform** to offer his mobile services. **But the authorization that is granted by WPC is based on the technology choice that is exercised** by the licensee **for granting of "appropriate frequency band**"

iii. This is also the position as per Clause 23.1 of the UAS License which states

> *"The **Licensee shall provide the details of the technology proposed to be deployed** for operation of the service…."*

Thus it is **very clear that a technology choice has to be made** by the licensee so as to be able **to get the appropriate spectrum from WPC.**

iv. Clause 23.5 of the UAS License provides that :

> *"The frequencies shall be assigned by WPC from the designated bands prescribed in National Frequency Allocation Plan - 2002. (NFAP-2002) as amended from time to time. **Based on usage, justification and availability, spectrum may be considered for assignment,** on case by case basis"*

Thus clearly the spectrum that is allotted /assigned has to be from the designated bands prescribed in NFAP-2002 (as amended from time to time). Further, the **use of the words "usage" and "justification" clearly specify a legacy baggage and a link to the initial technology choice that is exercised** by the licensee in Clause 23.5.

This is also the view of the Authority (Para 4.8) where it has noted that "*Thus, it is clear that **the option for various technologies** by the licensee has been **addressed within the four corners of National Frequency Allocation Plan.** It is for this reason that clause 23.5 of UASL mentions: "Based on usage, justification and availability, spectrum may be considered for assignment, on case by case basis." Evidently, the **availability of spectrum in specified bands has been linked with usage and justification thus indicating a legacy baggage."***

v. Further, Clause 43.5 (i) of the UAS License provides

> "*For wireless operations in SUBSCRIBER access network, the frequencies shall be assigned by WPC wing of the Department of Telecom from the frequency bands earmarked in the applicable National Frequency Allocation Plan and in coordination with various users. **Initially a cumulative maximum of upto 4.4 MHz + 4.4 MHz** shall be allocated in the case of TDMA based systems @ 200 KHz per carrier or 30 KHz per carrier **or a maximum of 2.5 MHz + 2.5 MHz shall be allocated in the case of CDMA** based systems @ 1.25 MHz per carrier, on case by case basis subject to availability"*

Thus the **license** very clearly provides for an initial allotment of spectrum based either on TDMA systems **or** based on CDMA systems and **does not contemplate a scenario where both types of spectrums can be given to a single Licensee** for provision of same service on different platforms.

vi. The fact **that the licensee can only get spectrum based upon his original technology choice, is further reinforced by Clause 43.5(ii**) that provides

> ***"Additional spectrum beyond the above stipulation** may also be considered for allocation **after ensuring optimal and efficient utilization of the already allocated spectrum taking into account all types of traffic and guidelines / criteria prescribed from time to time ..."***

Thus the **allotment of additional spectrum is linked to technology choice exercised vide Clause 43.5 (ii)**as it will consider additional allotment based on the optimal use of the existing allotments. It must be appreciated that additional allotments **can only be made pursuant to and in consonance with the initial allotments as per Clause 43.5(i).**

Also, the license does not at any stage contemplate more than one technology choice being made by the Licensee. We thus disagree with the Authority's view in Para 4.12 that the key issue is not a blanket disqualification for a licensee to offer more than one access service technology" We firmly hold that the **UAS License by clearly requiring the licensee technology choice at the outset** and then linking both initial as well additional spectrum allotments to the same, clearly rules out any scenario where a licensee can acquire spectrum for both technologies under a single license. This embargo on cross over allotments of spectrum is further endorsed by the fact that there are technology specific spectrum allotment guidelines as also spectrum usage charges.

Government's Spectrum Allotment Guidelines

vii. In addition to the above clauses of license, we submit that **this embargo on crossover allotment** of spectrum is further **endorsed by the technology sensitive/specific spectrum allotment guidelines** prescribed by the Government.

viii. The subscriber linked spectrum allotment guidelines prescribed by the Government **lays down two very separate and distinct paths for allotment of spectrum to GSM and CDMA** operators as it contemplates different tranches of spectrum allotment for GSM and CDMA operators. This

is demonstrated through the table below which shows the subscriber linked spectrum allotment guidelines prescribed by the Government for GSM and CDMA in the **case of Delhi /Mumbai Metro Service areas**.

	Subscriber Base	**GSM**	**CDMA**
a.	Nil (Initial Allotment)	4.4 MHz	2.5 MHz
b.	3 lakh subscribers	6.2MHz	3.25 MHz
c.	6 lakh subscribers	8 MHz	-
d.	10 lakh subscribers	10 MHz	5 MHz
e.	16 lakh subscribers	12.4 MHz	6.25 MHz
f.	21 lakh subscribers	15 MHz	7.5 MHz

g. It is clear from the above table as also the License terms and conditions, that **based on the technology choice exercised** by the operator, he would be **entitled to either 4.4MHz of GSM spectrum OR 2.5 MHz of CDMA spectrum.** Upon achieving a subscriber base of 3 lakhs, the GSM operator is entitled to receive an additional spectrum of 1.8MHz while the CDMA operator is entitled to receive an additional spectrum of 1.25MHz. Similarly, at a subscriber base of 10 lakhs, the GSM operator is entitled to 10MHz of GSM spectrum, whilst the CDMA operator is entitled to 5MHz of CDMA spectrum. The **guidelines neither envisage nor provide for additional spectrum to be allotted from another technology path.**

h. Thus for provision of Mobile Service, the **operator has to choose the platform i**.e. either GSM or CDMA so as **to enable WPC to allot appropriate frequencies** in accordance with the spectrum allotment guidelines.

c. The **Authority has also rightly noted** that :

i. *"**The present UAS and CMTS licenses provide that the operator shall make its choice for specific mobile technology.**"* (para 1.16)

ii. ***"..spectrum is assigned based on technology–sensitive subscriber-base criteria**, which is different for CDMA and GSM technologies..."* (para 2.50)

iii. *"As per the existing licensing regime, the **applicant company is first given the license** on a specified entry fee **and then based on the technology option** and the frequency band applied for by the licensee; the Wireless Planning & Coordination (WPC) Wing issues the **WPC license which permits the utilization of appropriate frequency band.**"* (para 4.5)

d. The **above view is also supported by the actions of the Government** with regard to the allotment of spectrum

i. For example, in 1999-2000, when, pursuant to the announcement of technology neutrality, **some GSM operators applied for CDMA spectrum**, the said **request was turned down by the Government** on the grounds that the **operators were technology neutral only within their designated band** and further that the CDMA spectrum was earmarked for the fixed service providers.

The DoT Letter dated April 9, 2001 stated:

> *"…The operators have been permitted to operate the Cellular Mobile Telephone Service in any technology, however, the **technology shall be digital and has to operate in the designated frequency band…**"*

The **above decision was taken by the Government after technology neutrality was implemented** and thus any reference to the licenses being technology neutral and thus allowing for crossover allotment of spectrum is incorrect and cannot be sustained in view of the clear position taken by the Government in 2001.

ii. Furthermore, there has been **no change in this position even after the introduction of UAS licensing.** It may also be noted that while the UAS guidelines issued by the Government on 11.11.2003 **provided that "the unified access providers are free to use any technology without restriction**" it **also stated that the service providers migrating to UASL will continue to provide wireless services in the already allocated and contracted spectrum"** thus clearly indicating that while the UAS **operator has the freedom to choose his path /platform**, **for the migrating operator that technology choice has already been made** and that he has to continue to provide wireless services as per his contracted spectrum.

The Authority too has noted (Para 4.9) that "*The **guidelines reiterated** that the service providers **migrating to unified access** service license will **continue to provide wireless services in already allocated and contracted spectrum**. Thus it **envisages continuity of technology** in providing telecom services. Further, the guideline mentions, "the unified access service providers are free to use any technology without any restriction….Based on the above analysis, it can be said that **there is a legacy baggage on the licensees along with the pre-determined spectrum bands** for the deployment of technologies".*

e. T**here are also some private companies that are operating in both the GSM as well as CDMA space** but here too, it may be noted that the **services are being offered under separate licenses** and is **on account of a one-time waiver / exemption** given on the substantial equity clause at the time of UASL so as to **facilitate the settlement of the WLL(M) dispute through migration to UAS** Licensing regime.

f. Moreover, in our case, when we surrendered our UASL (*earlier Fixed Line Licence*) in Madhya Pradesh Service Area and migrated our CDMA subscribers to another UASL of GSM technology, we were allowed to retain the CDMA spectrum for a limited period for smooth migration of CDMA subscribers to GSM technology. This clearly evident that the Department has always followed the principle that in case of usage of cross technology, the entity has to choose one technology over other and cannot keep both the technologies.

II. <u>Consideration of Crossover Allotment Will Create Several Problems & Have Many Adverse Implications</u>

a. Having established that **crossover allotment of spectrum is not permissible** under the present policy & licensing regime, we believe that **it is neither necessary nor desirable to review this policy.**

b. At the outset, it is submitted that we are not aware of any new developments /emerging technologies in the access segment in recent years that warrant a relook at the embargo on crossover allotment of spectrum.

c. **If crossover allotment of spectrum is considered**, in view of the **severe paucity of spectrum,** it will be i**mpossible to honour and adhere to the current spectrum allotment guidelines** as it will lead to a doubling of contenders for the already very scarce and limited resource of spectrum.

d. Any **change of policy will also create uncertainty in the minds of investors** (Indian/Foreign) and will be a setback to their investment plans thus impacting the future growth plans of the industry.

e. It is in fact the **mobile sector that has been the flagship of the Indian liberalization process** and it is the performance of this sector that has made India one of the fastest growing economies of the world and has placed India very firmly on the global telecom map.

f. It may be noted that in the unique Indian environment where adequate spectrum was not available upfront, it was **the Government's subscriber linked spectrum allotment criteria** that gave the industry a **predicable policy environment in which to plan and grow their networks**. Operators are assured of additional tranches of spectrum upon achieving pre defined subscriber linkages

g. In this regard, it may also be noted that as per the **present terms of UAS License**, **no Mobile Service Operator is permitted to hold equity of more than 10%** in another Mobile Service Provider in the same service area. In other words, the Government's policy is that **there should be healthy competition** and each Mobile Operator, whether it is GSM versus GSM or GSM versus CDMA or CDMA versus CDMA, must compete openly and fairly in the market and must not be in a position to exercise operational or managerial control over another operator / network.

h. It may be noted that **in case of a crossover allotment** of spectrum, the **licensee would in fact be running two separate networks** and providing mobile service on both CDMA and GSM platforms, which would be **against the basic tenets of the present policy** of the Government as enunciated in the license. It may also be noted that there was **only a one-time waiver given to this policy** in November 2003 so as **to facilitate the migration to the UASL** regime.

i. This **situation would become even more anomalous** if one was to consider the case of the licensees who migrated from BSO to UASL who were given one time waiver on the 10% equity cross holding clause that was given at the time of UAS licenses to facilitate the migration to UASL. Such **licensees are already running separate GSM and CDMA networks** under two different licenses in the same service area. **If crossover allotment of spectrum were to be permitted**, then the Licensee **could apply for and receive both GSM as well as CDMA spectrum under each license** and would thus be **able to run four networks in the same service area** which would not only be **detrimental to Government's policy of fair competition, but against all principles of level playing field.**

j. What about the **GSM operators who had earlier applied for CDMA** spectrum and their applications had been rejected because they were told that technology neutrality applied only within their designated band. The principle of technology neutrality was in place in 1999 when their applications were rejected, all the UAS licensing regime did was to allow the provision of both fixed and mobile services under a single license. There was no change in the technology neutrality policy under UASL – rather if at all there was a reconfirmation that the technology choice had already been made by the licensee and that he could migrate to UASL only with his allocated / contracted spectrum.

k. Given that the Authority has recorded that there is **even as of now a spectrum shortage of 20 MHz even for the existing operators can the Authority considers recommending a policy that will further aggravate the problem**? Given the severe paucity of spectrum for existing operators, **would any such policy amendment be tenable that creates more contenders for a limited resource**

l. The Authority has repeatedly maintained that **spectrum is bundled along with the license**. The **initial entry fee paid by the operator includes the payment for spectrum**. When the fixed operators migrated to UASL they had to match the entry fee paid by the 4th CMSP for the right to offer cellular mobile services in the allocated / contracted spectrum. This **entry fee is only for receiving spectrum as per the technology choice** exercised by the licensee and **not for receiving spectrum for both technologies**.

m. This is evident from the case of the **BSOs who at the time of migration to UASL** were allowed a one-time waiver and **allowed to operate two different licenses** in the same service area. However, it may be noted that **for each of these licenses, a separate entry fee was paid** and services of both technologies were being offered under different licenses.

n. If such a situation were to be permitted, it would amount to **allowing two licenses to operate for the price of one** and in effect allowing a **new operator into the field through the backdoor,** without payment of entry fee.

o. In light of the above, it is strongly submitted that **under the present policy and license regime,** a **licensee** using one technology **cannot be assigned additional spectrum meant for the other technology** under the same license and for the various reasons outlined above.

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

In view of the fact that cross over allotment of spectrum is not permissible, the question of a setting a price for the same does not arise.

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

Once the Licensee is in operation, it is of paramount importance for the Government to ensure adequate spectrum for existing operator. The importance of ensuring the availability of adequate spectrum to existing operators, who are already in operation, has always been taken into consideration by the Authority before considering the spectrum requirement of new licensees, who are either yet to start the commercial services or obtain the fresh Licences.

In NTP-99, Government of India has stated that " "**Availability of adequate frequency spectrum is essential** not only **for providing optimal bandwidth** to every operator but also for entry of **additional operators**…."

From time to time, in its various recommendations, the Authority has always laid down a principle that the spectrum requirements of existing licensees should be met before considering the spectrum requirements of new licences as the same was essential for maintaining the QoS, allowing the existing operators to provide the service in more cost effective manner, avoidance of sub-optimal cost structure and quality of service etc. Even, the Authority has also stated that the adequacy of spectrum for existing operators should be seen in the context of short term requirements upto 2007 as well as beyond 2007. Some of such observations are as under:-

a. **Recommendations on 4th CMSP**

While deliberating the issue of entry of 4th CMSPs, the Authority observed that the issue of new licence is not independent of availability of spectrum to the existing operators. Thus the recommendation of the fourth cellular operator was made by TRAI only after ensuring adequate availability of spectrum, which is clearly evident from the following observations made in the said recommendations:-

1. ……. **additional spectrum, if available**, should be **given to the existing operators** to enable them to provide service in a more cost effective manner. Additional spectrum will also **result in improved quality of service.** …
2. Eventually, sustaining competition requires that the **existing players are able to function in an efficient manner with adequate band-width.**
3. A sub-optimal cost structure and quality of service may finally turn out to be detrimental to the growth of tele-density notwithstanding a higher number of service providers."

b. Recommendations on the issue of fresh licenses to Cellular Mobile Service Providers (CMSPs) dated February 20, 2003

In its recommendations on the issue of **fresh licenses to Cellular Mobile Service Providers (CMSPs)** dated February 20, 2003, while examining the possibility of inducting additional CMSPs in various service areas, the Authority had stated:-

"It is seen that **existing cellular operators in India have much less spectrum allocation in comparison to their counterparts** in other countries. This imposes a needless constraint on them in respect of **both QoS / optimal network engineering**"

Accordingly the Authority recommended that "**induction of additional mobile service providers** in various service areas can be **considered if there is adequate availability of spectrum for the existing service providers** as well as for the new players, if permitted."

c **Recommendations on Unified Licensing dated October 27, 2003**

In the above recommendations, the Authority observed that :

Induction of additional mobile service providers in various service areas can be considered if there is adequate availability of spectrum for the **existing service providers** as well as for the **new players, if permitted.**

d. Recommendations on Unified Licensing dated January 13, 2005

In its recommendations on the introduction of the 5th and 6th Cellular Mobile license, the Authority opined that

"Induction of additional mobile service providers in various service areas can be considered if **there is adequate availability of spectrum for the existing service providers** as well as for the new players, if permitted."

e. **Recommendations on Spectrum Related Issues dated May 13, 2005**

2.2.2 "New operators should be allowed in areas where **spectrum requirements of existing operators have been met** and additional spectrum is available"

2.2.3 "This approach should be followed for allocation of spectrum **for even IMT-2000 services** for areas where there is adequate competition and **constraint on spectrum availability for existing operators in existing 2G/2.5G services."**

2.3.4 ……..**Also, before we consider assigning spectrum to new service providers it is pertinent to ensure that the existing service providers have adequate spectrum.**

3.3.6 From the analysis of level of competition it is evident that with 4 to 7 mobile operators in different service areas, there is adequate competition in almost all the service areas. **It is, therefore recommended that before we consider allocating spectrum to new service providers it is necessary to ensure that the existing service providers have adequate spectrum**. **The adequacy of spectrum has to be seen in the context of short term requirements upto 2007 to meet the government objectives of the sector, the spectrum requirements beyond 2007 and the existing spectrum allocation criterion.**

f. Even, in the recent Consultation Paper (Para 6.16), the Authority has observed …… that the threat of **India becoming a high-growth, low-quality market** cannot be underplayed.

h. Keeping in view the above regulatory principles laid down by the Authority, we fully endorse the Authority's proposed approach on the prioritization of spectrum allocation among the following 2 categories:-

i. The existing licensees are eligible for additional spectrum allocation as per WPC criterion
ii. The new licences are waiting for initial spectrum allocation for starting the mobile services

We agree that as a clear differentiation between existing operator (who is already providing telecom services) and the other one holding Licence but without spectrum should be made. This is critical to ensure that no operator runs a sub-optimal network quality which will be harmful for customers.

Hence, clear priority should be given to existing operators who are growing the market and driving higher traffic. **Once the spectrum requirements of existing operators are fully met as per their entitlement** on the date of considering initial allocation of spectrum to new licensees and **their future spectrum requirements is fully safeguarded to the maximum prescribed limit, as per spectrum availability road map,** the Government may allocate the spectrum to new operators.

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?

It is submitted that **as cross over allotment of spectrum is not permissible and we strongly believe that this policy should not be reviewed**, the question of **prescribing 'additional rollout obligations' does not arise**.

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?

It is again reiterated that **cross over allotment of spectrum is not permissible** under the present policy and licensing regime and, for the reasons given in pre-paras, it is **neither necessary nor desirable to review this policy.**

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 obligation is met. Please specify, in case you may have any other suggestion.

a. We have consistently maintained that the **very raison d'être of rollout obligations needs to be reviewed**. **Past performance** has clearly demonstrated that the **stipulation of rollout obligations** and **even the imposition of stiff penalties** for non-performance, **does not necessarily lead to achievement of rollout.**

b. In fact, it was for this reason that the rural **rollout obligations stipulated for FSPs under their licenses were waived in the UAS regime**.

c. Further, the **Authority in its recommendations on Unified Licensing** regime had questioned the relevance of rollout obligations and had **recommended waiver of rollout obligations (for NLD operators)** after noting that:

   i. "… despite incorporating rollout conditions in the license, one has not seen the large operators entering and covering telecom-facilities-wise backward areas. A need has been felt to attract investments in such areas by making the operations more viable." (Para 3.2)

   ii. "The objectives of rollout obligations are to ensure spread of infrastructure (as far as possible) and coverage of rural, remote and less developed areas. Specifying these obligations in the license conditions in the past could not meet these objectives in a major way." (Para 7.1)

   iii. "As mentioned earlier, if the service provider does not find any part of the service area financially viable then the service provider will not rollout his network in that area. The service provider may even prefer to pay the penalty for not meeting such specified rollout obligations. Our thrust has to be on ensuring that service providers find it attractive to roll out his network even in uneconomic areas. The license conditions should be such that service providers find it attractive to rollout the network even in such areas……Thus in general, rollout obligations should be phased out expeditiously." (Para 7.2)

d. It is also submitted that **once the Government has moved to a market led policy** and licensing regime and has **facilitated the introduction of competition**, the **objective of coverage and reach is being automatically achieved** as players will continue to venture into newer areas to seek business.

e. In this context it may be noted that :

   i. The Indian mobile industry which is the most aggressive and intensely competitive segment within telecom has invested thousand crores in the sector
   ii. It has a total mobile subscriber base of over 174 million which is growing at 6-7 million subscribers per month.
   iii. It has reached out and covered 60% of the population and 40% of the geographic land mass.
   iv. Cellular coverage and service is available in over 8000 census and non census cities and towns and lakhs of villages.
   v. The sector is already offering the lowest tariffs in the world

f. The **aggressive growth of the mobile sector has been driven by the intense competition** in the sector and **not as a result of any stipulated rollout under license**.

g. Under these circumstances, we believe that the **mobile industry has in fact, the least requirement of any mandatory rollout obligation**. It is therefore surprising that **while rollout obligations have been removed for other segments**, like **Fixed Service Providers**, **national and international long distance operators**, etc; these not only **continue to be prescribed for mobile /access service** providers.

h. The Authority too, has recorded this viewpoint (Para 5.17) that "***once effective competition is operating*** *in the market then* ***rollout obligations are not required****. This is because* ***competition will force the service providers to extend their coverage and provide good quality of service.***"

i. As regards the **counter viewpoint that rollout obligations are required** to ensure quicker rollout especially in the **non lucrative areas** and since **USOF is providing support in specific locations / clusters only** (Para 5.18), it is submitted that the **more appropriate approach to expand the size and scope of the USO funding** is to cover more locations. It is a well known fact that there is a significant corpus available in the USO Fund, and the size of the fund is increasing on a continuing basis. The Government is already considering a second phase for its USO Subsidy support scheme. The industry is also deliberating on proposals to give an impetus to rural telephony.

j. We thus believe that it is **not necessary to stipulate rollout obligation** in the licenses. Accordingly, it would **also be desirable to amend the existing provisions of license to do away with the stipulation of LD charges**.

k. Needless to say, the **above provisions should be equally applicable to both new as well as existing operators.**

l. In the context of existing operators it is submitted that the service providers have faced many constraints and challenges in complying with the licensing conditions pertaining to rollout. These include inter alia:

- **Delays in SACFA Clearances –** This **aspect has also been noted by the Authority** (Para 5.16) where it has recorded that "*there have been* ***delays in the past in the allocation of spectrum*** *as it is subject to availability*" and that "***in the absence of spectrum, it will not be possible*** *for him [service provider]* ***to start rollout***" and that "*the rollout obligation would not be fulfilled if the date is reckoned from the effective date of license...*"

- **TEC Testing Delays –** The date of the TEC test certificate issued by the TEC is taken as the date for commissioning. There **have admittedly been delays of even upto one year on this account** and **thus even if the service providers have commissioned their network, the same is not taken into account** till a TEC test certificate has been obtained. The Authority too, has noted that most of the service providers are in default of the required TEC certificate, which it is submitted would not necessarily mean that the network had not been commissioned.

m. It may be noted that the **Government is cognizant of the concerns and challenges** and it was to address the same that **an automatic procedure for SACFA clearances was introduced in June 2006** and a **self test certificate was allowed to be submitted by service providers from January 2007** for completion of rollout obligations.

n. There are however still some concerns on the implementation of the above measures. While the **Authority has observed that the date of self certification is being taken as the effective date for rollout**, it is submitted that **this is not the case in practice** as these **self test reports are not being accepted by TEC** on the ground inter alia that they need to physically verify the site before accepting the report, thus negating the very concept of self certification.

o. In light of the above, we believe that **for existing service providers**, **there should be no Liquidated Damages** imposed on service providers **on account of dela**ys in SACFA clearances / TEC testing **that are beyond the control of service providers**.

p. It is again reiterated that the **stipulation of mandatory roll-out obligations for access services should be removed,** as done earlier for other licenses and that that the removal of this condition of roll out obligations should be **applicable both for existing as well as for new operators, as was earlier done in the case of National and International Long Distance Services.**

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?

a. As already submitted earlier, **the aggressive growth in the mobile sector is being driven by the market** and the **intense competition in the s**ector. In today's scenario, **Bank Guarantees** from service providers have **lost their relevance** as **operators are vying with each other to reach out to newer markets.**

b. It is also submitted that **Bank Guarantees benefit neither the end-customer nor the industry nor the Government.** In fact, Bank Guarantees **represent a huge cost in the operations** which is **ultimately reflected in the end user tariff**.

c. It is also submitted that **over the past few years**, **Government has reduced the various Bank Guarantees** like Financial Bank Guarantee and the NLD Performance Bank Guarantee, etc. We believe that this progressive action is **a recognition of the fact that Bank Guarantees impact the cash flows** of companies in this highly competitive market **and add a significant cost burden** on the operators who are important players in the Indian telecom sector and are partnering the public sector telecom players for the aggressive growth of the telecom service in the country at affordable tariffs.

d. **In a situation where operators are** now aiming to **reach out into new untapped markets** in rural areas, the **cost of service** will surely be **a key consideration** for potential consumers. We believe that **all efforts should be made to rationalize the cost structure** so that consumers are able to avail of the most affordable tariffs and the industry is able to achieve the telecom targets of the Government.

e. It is very important to note that **removal of BGs will not only reduce the cost structure** of the companies but will **also enhance the ability of the companies to raise funds for expansion.**

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.

a. No, we believe that rollout obligations should not be imposed again on NLD operators and there is no cause or justification to review this position, which was arrived at by the Authority after extensive consultations and was also accepted by the Government.

b. We also reiterate that rollout obligations in general, should be done away with for all segments and the objective of coverage should be achieved through **a market led approach coupled with a package of policy and regulatory measures designed to 'incentivise' rollout.**

c. The Authority should look into the areas which can enhance the competition in the NLD segment and encourage the NLD operators to extend its footprint in rural areas. For instance, on December 14, 2005, Department of Telecommunications (the Department) had allowed the NLDOs to terminate to terminate intra-circle traffic with the consent of **originating operator only**.

The said amendment created a big incentive for the NLD operators to establish the connectivity at the SDCA level as extensive as possible, resulting into incremental traffic from the Access Providers.

The above amendment offered a great incentive to all NLDOs to extend its rollout to the SDCA level as the more number of connectivity at SDCA level, any NLDOs has, the higher traffic they may expect from the Access Services. Moreover, the extended coverage of the NLDOs at the SDCA level will enhance the competition in this segment, where presently the Incumbent operator is charging the higher traffic, resulting into lower tariffs for the end customer

d. Moreover, USO should extend the subsidy support to NLDOs for laying the fibre and for other telecom infrastructure, which will motivate the NLDOs to extend its rollout in rural areas.

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

For the reasons outlines in pre-paras, there is **no requirement for any additional roll out obligations to be levied on ILD operators.** A market led approach is preferable to mandating rollout

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

It is again submitted that **rollout obligations should not be mandated** and thus the **question of 'verifying compliance' does not arise**.

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

a. The Authority has noted that the **technical parameters** which are used **to determine the quality of the network** in a particular geographical area are **Call Success Rate, Call Drop-out Rate and Voice Quality**. It is submitted that the parameters prescribed by the Authority for QOS **should continue to be used to determine the QOS**.

b. It must however be appreciated that a**chievement of the above QOS parameters depends upon a number of factors**, viz. **timely availability of adequate spectrum** and adequate and **timely augmentation of interconnection facilities** and **unless the service provider is assured of the basic wherewithal to ensure QOS**, he will be **unable to achieve the benchmarks** set by the Authority.

c. In this regard the Authority has itself noted in Para 6.42 that the spectrum requirement of existing operators is 20MHz more than the existing available spectrum.

d. Further also the issues related to interconnection have still not been addressed, including inter alia:

- Private operators continue to be interconnection seekers despite 12 years of service, when in fact, at least in the case of cellular services, they should have been accorded the status of Interconnection Providers
- The full costs for setting up of interconnection are borne by the private operators even thought the port is used for by both interconnecting parties for incoming as well as outgoing traffic.
- There is an elaborate and long drawn out process followed by the incumbent operator for granting interconnection or augmenting existing interconnection facilities
- The delays on the part of the incumbent impact the QOS of the industry and also its ability to add on more subscribers
- Etc

e. The **Authority is aware of these concerns and challenges** being faced by and has referred to the same in its various study papers.

f. It is submitted that **unless these issues are resolved** and **private operators are assured of adequate, fair and timely interconnection**, they will **always face constraints in complying with QOS** benchmarks laid down by the Authority.

g. Another issue in this regard is with respect to the **requirement of in-building coverage**.

i. At the outset, it is submitted that **as per the provision of license**, the **90% coverage** prescribed **applies to both street as well as in-building** coverage and **does not apply to in building coverage alone**. This is clear from Clause 34.2 (iii) of the UAS License that provides that

> "coverage of a DHQ/town would mean that at least 90% of the area bounded by the Municipal limits should get the **required** street as well as in-building coverage."

ii. It may further be noted that the term "**required" coverage was not defined till 2005,** when the Authority in its QOS Regulation prescribed as below:

Sl. No.	Parameters	Benchmarks	Averaged over a period
A	Network Performance		
(vii)	Service Coverage	In door >=-75dBm In-vehicle >=-85dBm Out door-in city >=-95dBm	

iii. It may also be noted that **internationally indoor building coverage criteria is not mandated**. A study of international practices of 26 countries from Asia Pacific, Africa, Middle East and Europe in this regard**.** This shows that :

- There is no stipulation on indoor cellular coverage and the same is also not part of the rollout / coverage requirement
- The geographical coverage applies to street coverage only
- In building coverage is left to market forces

h. It is therefore submitted that the **Authority may kindly review the above parameter on indoor coverage.**

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

a. We are of the view that **as the licensees are contributing to the USOF**, it is neither **necessary nor desirable to provide for any "minimum rural rollout obligations**." It is submitted that the **USO Fund levy is an equitable and transparent way to subsidize rural rollout** as the subsidy is directed / targeted at service providers who are interested in and are undertaking the responsibility of rural rollout. Further, as has already been submitted in pre-paras **rural rollout should be incentivised and not mandated**.

b. Presently, all operators are equally contributing to USO fund and accordingly, are equally entitled for subsidy support for creation the telecom infrastructure / coverage in rural areas. However, the existing mechanism of allocation of USO subsidy through tender (financial bidding) process limits the number of operators for USO subsidy support. Keeping in view the same in consideration, in its recent recommendation on "Infrastructure Sharing", the Authority has recommended that all operators should be entitled for the subsidy support, even who have been left out as unsuccessful bidder from the existing bidding process for the same locations, may be entitled to get the subsidy support from USO fund.

c. We strongly feel that instead of current tender mechanism, a fixed incentive should be available to all operators for creating the telecom infrastructure in rural areas. We are sure that the **subsidy support to all operators will enable faster growth of telecom infrastructure in rural areas.**

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

Not for 'verifying' rural rollout, but the number of BTS's could be used as way of estimating coverage achieved by service providers.

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

a. We believe that a **comprehensive package of policy, regulatory and financial incentives** would go a **long way in achieving rural rollout at an aggressive pace** to **meet the country's telecom obje**ctives. Some such **measures which may be considered** by the Authority are as follows:

i. **Discount in License fee and Spectrum Charge - ** We fully agree with the observations made by the Authority (Para 5.36), that a discount in the payment of license fee and spectrum charge could be considered so as to give incentive to rural roll-out.

As has been rightly observed by the Authority, one method of offering such type of discounts could be to provide **discounts based on specified number of BTSs installed by the operator in the rural areas** of its Service Area. A minimum rollout in the rural areas, in terms of BTSs to be installed, could be specified against which a discount could be given. The discounts could be on a slab basis, say 1% discount in license fee, in case 150 towers are installed in rural areas, 2% discount in license fee in case 300 towers are installed in rural areas an so on. **After mutual discussions with the service providers, the aspect of infrastructure sharing could also be factored in this mechanism.**

ii. **Higher Mobile Termination Charge (MTC)** - WE has time and again submitted the need for having **higher mobile termination charge with a view to incentivise roll-out, especially to the rural areas.**

Rural areas, being very price sensitive, the proportion of incoming calls is much higher than outgoing calls. Also since tariffs, and usage of service, in terms of Minutes of Use (MOU) is lower in Rural areas, it is but natural that revenues from termination charge will be a critical aspect which shall influence the decision of the service provider to go rural.

Comparable Asian economies of **Malaysia and Pakistan** which **have used cost based MTC as a tool for encouraging spread of service** and **have been successful in achieving much higher penetration.**

Therefore a **higher MTC will help in faster spread of service** and will **provide a greater incentive for a service provider to go rural.**

iii. **Fixed Incentive -** With a **view to encourage infrastructure sharing as a means of ensuring faster roll-out in urban as well as rural areas,** a fixed amount per tower could be considered as an incentive which could be given to service providers who opt for sharing of infrastructure. The fixed one time incentive could be adjusted against the license fee payment which are due every quarter.

This will act as an incentive for service providers to offer passive infrastructure for sharing. This fixed amount should be provided even when a tower / Cell Site is shared between two operators. The fixed incentive system can be worked out through mutual consultations with all telecom operators as well as IP-I Service Providers.

b. It is submitted that the **License terms and conditions should be amended so as to suitably include the above.**

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?

a. While dealing with the issue of determining a cap on the number of Access Providers in each service area, the Authority has examined (Para 6.9) the following key considerations that must be taken into account by the licensor while determining the new licenses to mobile telephony service providers :

- **Competitive scenario:** Would new license enhance competition leading to reduction of tariffs, up gradation of quality of service and innovation in services?
- **Financial sustainability**: Can the market sustain the operation of an additional service provider through subscriber base and spectrum availability?
- **Availability of Spectrum:** Adequate spectrum for existing and new service providers.

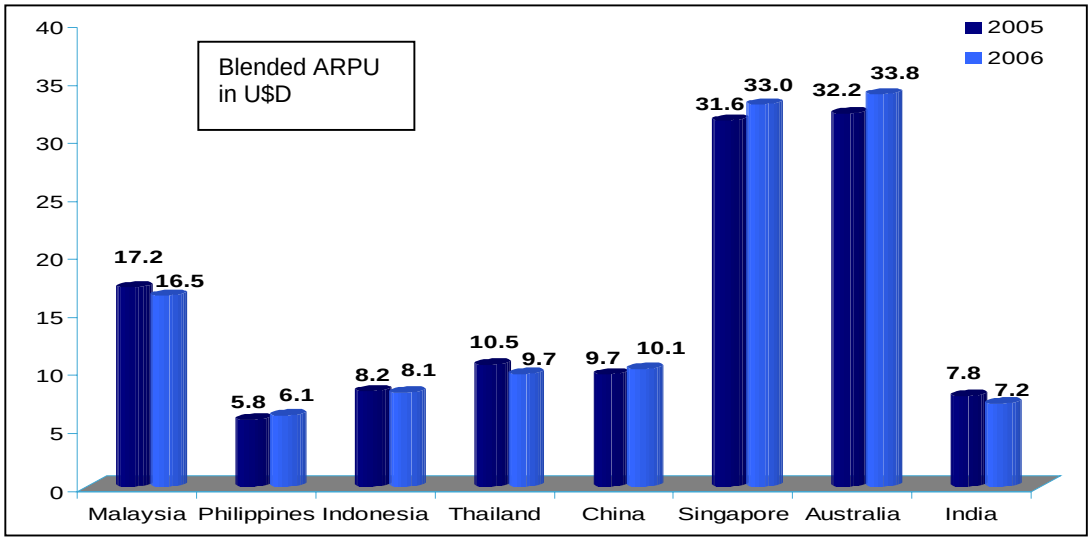
I. In the context of <u>competitive scenario</u>;

a. **Indian access market is already intensely competitive with 6-8 access operators in every service area**. The Authority has rightly noted (Para 6.12) that "***in India, each service area currently has more competition in the market than most developed nations".***

b. the Authority has also recognized (Para 6.12) that the **HHI Index in India is the lowest** as **compared to other Asia Pac** economies, thereby **signifying that the level of competition is the highest** in India.

c. The Authority has noted (Para 6.13) that **one of the strong rationale for introducing new service providers** in any service area **is to bring about a decline in tariffs** through competition.. The Authority has also acknowledged that "*the per minute tariff for cellular services in India is perhaps amongst the lowest in the world.*" And recorded the view that "*…any significant reduction in tariffs is unlikely with the introduction of more service providers"*

d. The Authority has also rightly noted (Para 6.13) that "*…the reduction in tariff as a stand alone objective may hurt the cause of quality of services and infrastructure expansion*." In this context, it is submitted that **mobile services have, over the years, become extremely affordable** and the same is reflected in the fact that **India has the lowest ARPU even when compared with emerging Asian economies.** From the graph below, it is clear that affordability of service is not an issue/concern in India



Source : PWC Benchmarking Study; Dec 2006

e. The Authority has noted (Para 6.14) "*Economic models/theory indicate that there is an 'inverted U' relation between competition and innovation Initially, competition and innovation increases with an increase in the number of operators. However, after crossing the optimum point, addition of new operators adversely affects innovation by unduly intense competition.*" It is submitted that India is at the cusp of the inverted 'U' and any further competition into the access segment **have an adverse impact on innovation.**

f. We fully agrees with the observation made by the Authority (Para 6.16) that **introduction of more operators may harm the competitive equilibrium** and will **have a negative impact on the quality of service** and that the threat of **India becoming a high-growth, low-quality market** cannot be underplayed.

g. The Authority has acknowledged that because of intense competition and a much larger number of players in the mobile segment in India, **the subscribers per service provider in India are lower than other countries of the world.** We believe that this **itself is an indicator** of the fact that **if competition is increased, it will put a big question mark on the overall financial health of new as well as existing operators.**

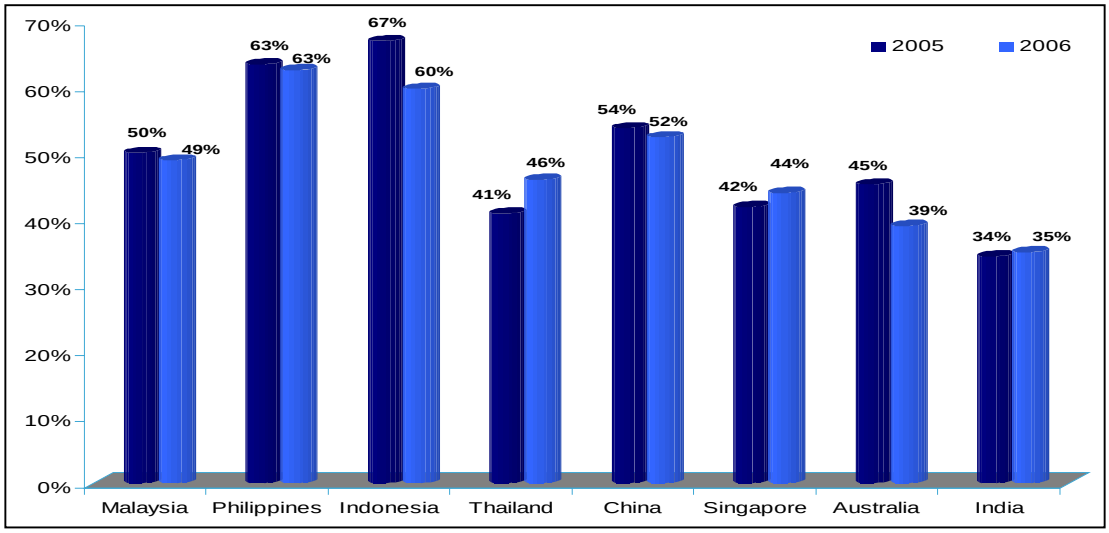
h. We has time and again submitted that **intense competition is having an adverse impact on the financial health of projects**, and is one of the reasons why tele-density is only around 19% - much lower than other Asian economies.

i. It is thus submitted that the **low tele-density of 19%** is **not indicative** of the fact that **scope exists for introduction of new players but rather,** it brings out the fact that **there exist bottlenecks which have hampered the spread of service and enhancement of tele-density.**

j. It is submitted that **the key challenge or the immediate concern** before the service providers **is to urgently enhance the reach of service** to the uncovered areas**. 60% of the geographical area and 40% of the population is yet to be covered.** Huge amount of capital expenditure is required towards achieving that objective. Low ARPU implies that the operating margins are not adequate enough to meet this objective.

II. In the context of <u>Economic and Financial health</u>,

a. Contrary to what has been observed by the Authority (Para 6.25) 'that the EBITDA margin of the listed companies have increased from 34% to 40%' - **because of the ever declining ARPU, the EBITDA margin of the service providers have more or less stagnated at around 35% level**. Also the EBITDA margins of service providers in India are the lowest when compared with other Asia Pac economies.



Source : PWC Benchmarking Study; Dec 2006

b. The fact that Service Providers in India have the lowest EBITDA margin has to be seen in light of the fact that **India is NOT a mature market**. **An EBITDA margin of 35% may be acceptable in a mature market, but in the case of India where the mobile coverage is yet to reach 60% of the area and 40% of the population, the EBITDA margin – being lower even than the mature markets – does not leave adequate funds for enhancing penetration of service.**

c. In line with the low EBDITA margins, the Service Providers in India have a far lower Return on Capital. TRAI itself has acknowledged that the Return on Capital Employed (ROCE) in India is much lower than China, with ROCE of mobile services in India being one third that of the mobile service providers in China.

	China	India
FISCAL YEAR	**Dec 04**	**Dec 04**
RoCE – Basic (%)	14.79%	10.92%
RoCE – Mobile (%)	**22.87%**	**7.83%**

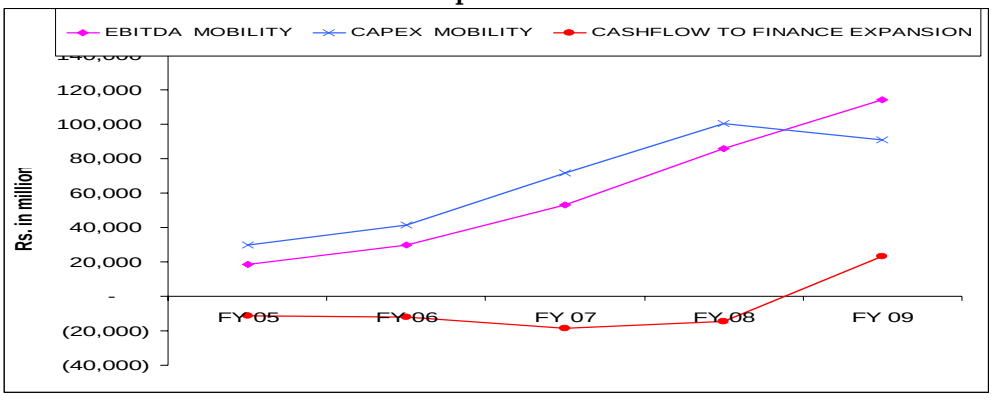
Source: TRAI Study Paper on Telecom Industry of India and China June 2005

d. The above only **brings out the fact that there is a need to enhance the investment attractiveness of the Indian mobile sector vis-à-vis other economies to enable expansion of service by attracting greater investment.**

e. In the context of financial health of the sector, it is very pertinent to mention that **even after being in service for more than a decade; companies still have negative cash flows. This would NOT have been acceptable in any other sector** and this is the factor which has severely hampered the spread of service.

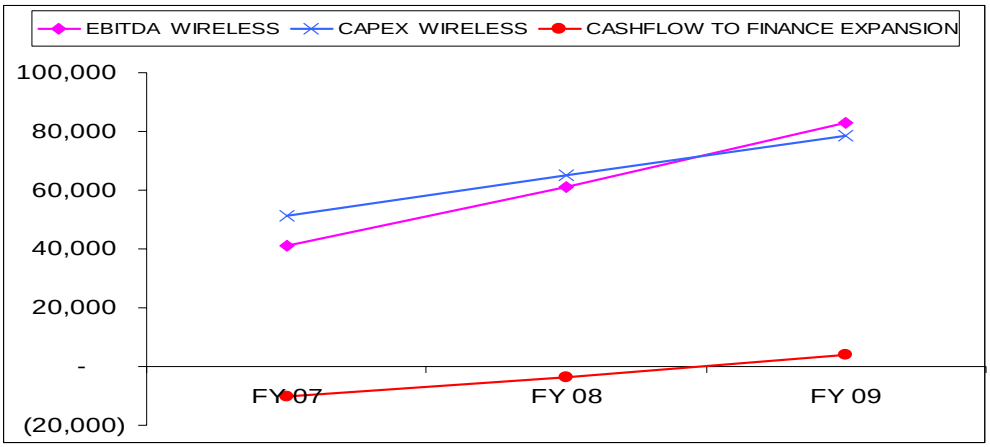
f. Illustrative cases of negative cash flows prevailing in the mobile sector are shown in the graphs below :

Operator 1



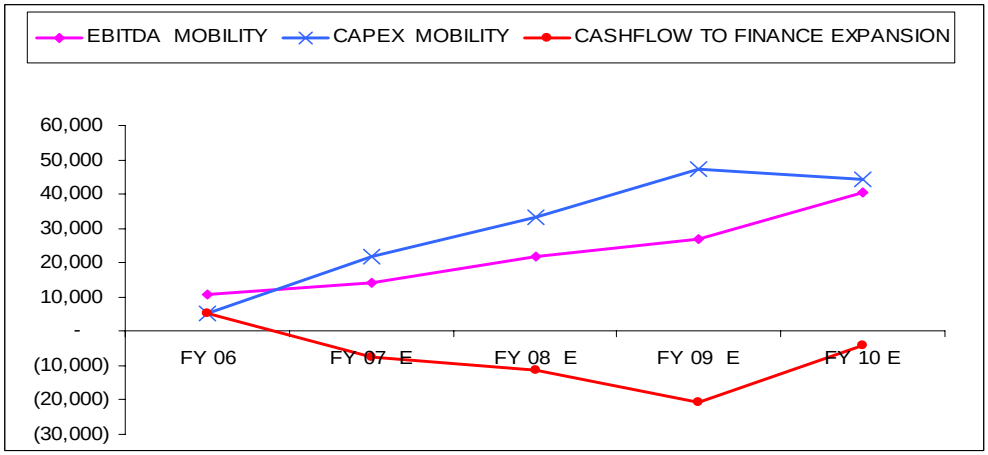
Source: Macquarie Research; April 2007

Operator 2



Source : Macquarie Research; November 2006

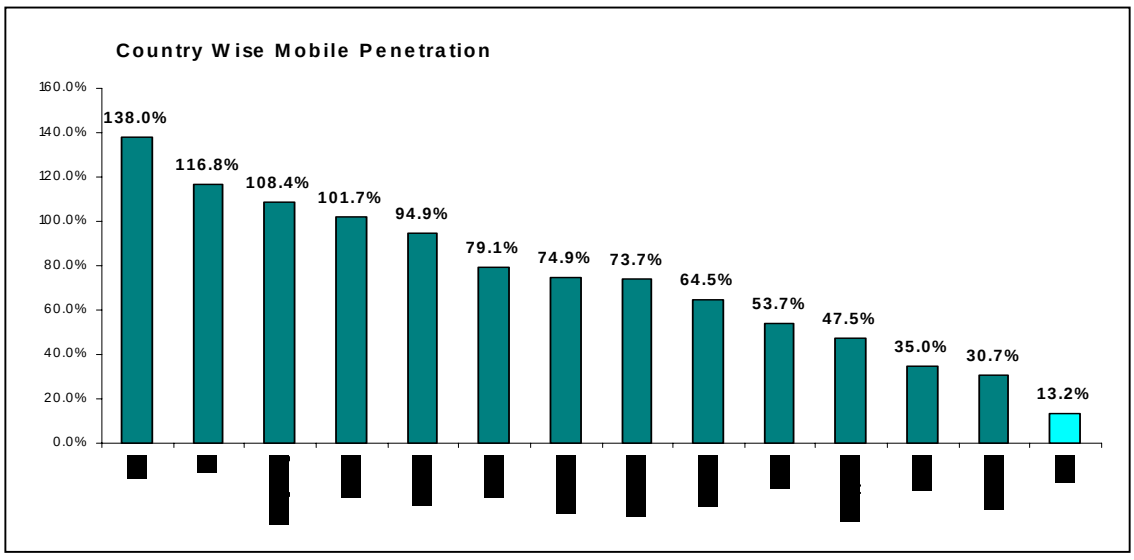
Operator 3



Source : Macquarie Research; April 2007

g. Low ROCE and negative cash flow implies that service providers **do NOT have adequate funds for expansion of service** – and as stated above, **this has acted as a stumbling block for the enhancement of tele-density – rather than low tele-density being an indicator of there being enough scope for introduction of new players.**

h. **This is one of the most powerful reasons for tele-density in India to be below global benchmarks** – and that too in spite of the mobile service in India being the most affordable.



Source: Merrill Lynch Global Matrix 4Q 06

i. Lastly and most importantly it is pertinent to mention that **one of the key role of the TRAI is to ensure orderly growth of the telecom sector.** The T**RAI Act charges the Authority with the responsibility**

> *"....to **protect the interest of service providers** and consumers of the telecom sector, **to promote and ensure orderly growth of the telecom sector..."***

III. In the context of <u>Availability of Spectrum</u>;

a. **It is a fact that spectrum which is the most vital raw material** to offer mobile services i**s in extremely short supply** and thus it is **most anomalous to have a policy of open competition in an environment of limited availability of spectrum**.

b. It is submitted that **once a service provider has been granted a cellular license**, **he <u>must</u> be assured of adequate spectrum** to offer his cellular services. This is **because the licensee is mandated** under both license as well as regulation **to maintain QOS standards**.

c. This **aspect has also been stipulated by policy makers and regulators** that spectrum requirements of existing licensees must be considered before providing for entry of new licensees.

- This has been enunciated in **NTP-99** which stated that "**Availability of adequate frequency spectrum is essential** not only **for providing optimal bandwidth** to every operator but also for entry of additional operators…." Further that "Considering the growing need of spectrum for communication services, there is a **need to make adequate spectrum available**" and "There is a need to have a transparent process of allocation of frequency spectrum which is effective and efficient."

- **TRAI** too, in its **recommendations on 4th CMSP** had stated "On economic grounds, it appears that it may be feasible for the fourth operator to enter in some service areas but this issue is not independent of the availability of spectrum to the previous three operators. There is **a view that additional spectrum, if available**, should be **given to the existing operators** to enable them to provide service in a more cost effective manner. Additional spectrum will also **result in improved quality of service.** … Eventually, sustaining competition requires that the existing players are able to function in an efficient manner with adequate band-width. In the circumstances a fair balance between the two objectives of increasing competition on the one hand and improving the quality, coverage and price-efficiency of the service on the other will have to be struck so that the larger objective of providing quality services at affordable prices is not jeopardized. A sub-optimal cost structure and quality of service may finally turn out to be detrimental to the growth of tele-density notwithstanding a higher number of service providers."

  Thus the recommendation of the fourth cellular operator was made by TRAI only after ensuring adequate availability of spectrum.

- Accordingly **when TRAI looked into the issue of permitting /allowing open com**petition in cellular in February 2003, it had stated "TRAI in its previous recommendations dated 24th October, 2000 relating to the entry of the fourth cellular mobile service provider had stated that in various service areas additional spectrum, if available, should be given to the existing operators to enable them to provide service in a more cost effective manner. This recommendation was made by the Authority to address the problem faced by existing players relating to engineering an optimal network which could meet the QOS norms specified by the Authority in its QOS Regulation. Eventually, sustaining competition requires that the existing players are able to function in an efficient manner with adequate bandwidth and are able to build a network without avoidable investment."

In light of the above, TRAI reiterated its view "that **both these objectives** of **increasing competition on the one hand and improving the quality, coverage and price-efficiency** of the service on the other will **have to be achieved** so that the larger objective of providing quality services at affordable prices is not jeopardized."

Accordingly TRAI recommended that "**induction of additional mobile service providers** in various service areas can be **considered if there is adequate availability of spectrum for the existing service providers** as well as for the new players, if permitted."

d. In the above context, it may also be noted that **paucity of adequate spectrum** for existing licensees **have resulted in serious QOS issues** (in fact the issue of QOS is presently before the TDSAT), which have been **highlighted by the Regulator from time to time.**

- In fact in its **study paper on Quality of Service** of Cellular Mobile Service **in Delhi** on September 1, 2005, TRAI noted "The **operators are facing shortage of spectrum** due to high growth and delay in allocating additional spectrum. This is also an **issue affecting the service quality** of mobile services all over Delhi."

- In a similar **study carried out for Mumbai** on November 22, 2005, TRAI noted that "The **operators are facing shortage of spectrum** due to high growth and delay in allocating additional spectrum. This is also an **issue affecting the quality of service** of mobile services all over the Mumbai as due to the lack of the spectrum; the operators are not able to optimize their frequencies to generate a good voice quality in CBD areas in peak hours."

It is clear from the above that **it is of paramount importance to ensure adequate spectrum for existing licensees before considering the spectrum requirements of new licensees.**

e. Clear priority should be given to existing operators who are growing the market and driving higher traffic. **Once the spectrum requirements of existing operators are fully met as per their entitlement** on the date of considering initial allocation of spectrum to new licensees and **their future spectrum requirements is fully safeguarded to the maximum prescribed limit, as per spectrum availability road map,** the Government may allocate the spectrum to new operators.

f. It may also be noted that this **quantum of 15 MHz per operator is lower than the average international practices** in spectrum allotment (17.1 MHz / operator) and well below international best practices (22 MHz per operator)

g. It may not be out of place to point out that **out of the theoretically available 100 MHz**, the **actual present spectrum availability is only around 35 MHz** which is **far lower than what is required to meet the needs of even the existing operators/licensees**.

h. In fact the Authority has itself noted (Para 6.42 and 6.43) that the **requirement of the existing operators is "*about 20 MHz more than the existing available spectrum*"** and that "even the 20 MHz spectrum in 1800 MHZ band which is likely to be vacated by the Defence in the near future, will just be sufficient to meet the requirements of the existing operators and that too, upto December 2007 only" and further "to meet the present growth rate of the existing licensees beyond December 2007, additional spectrum will be required to be coordinated."

i. In fact, even **assuming a most optimistic scenario** of a **doubling in the availability of spectrum** this would **at best be sufficient to meet the requirements of existing operators/licensees only**.

j. It may also be noted that **if the number of operators increases,** the **amount of spectrum that each operator can access reduces** which will not only have a **negative impact on QOS** but will **also entail much higher investments in infrastructure** to re-use the limited spectrum.

k. In this regard, the Authority too has noted (Para 6.37) that "*Another **key issue while determining the maximum limit** on number of operators in any service area **is the status of spectrum availability**. If the **number of operators increases**, the **amount of spectrum** that each operator can access **reduces** as the total spectrum available is limited in each service area. If share of spectrum per operator is reduced, then each **operator will have to invest more in their capital**, i.e. in the network infrastructure to put a larger number of BTSs in the same area in order to reuse spectrum more*." and further that (6.38) "*while this **might be desirable to an extent from the point of view of encouraging spectrum efficiency, it is not conducive to the development** of the sector. It is **self evident that that the increased capex forces higher investments** and **reduces returns on capital expenditure, thus affecting service improvements, in the long run.**"*

l. It is also submitted that **there is a limit to the amount of infrastructure that can be put in place by an operator**. Indian **GSM operators have already achieved inter site distances of less than 100 metres** in certain congested areas which is a **far closer BTS density than that achieved by any other country** in the world. Not only does this high BTS density have **serious implications on capex, but can also be a factor in deteriorated QOS.**

m. The Authority has rightly noted (Para 6.16) that "***the threat of India becoming a high-growth, low quality market cannot be underplayed.***"

n. **Thus, availability of spectrum** which is a scarce and limited resource **coupled with the Government's spectrum allocation guidelines will have to be a key consideration** while **determining the number of access providers** in every service area.

o. In this context, we would like to submit that we fully endorse the subscriber linked spectrum allotment guidelines that have been laid down by the Government and we firmly believe that this approach must be continued with as it is the only approach that will meet the spectrum requirements of service providers in an environment of severe spectrum paucity.

b. In view of **all the above considerations and submissions**, we are thus of the view that the new licences should only be considered for spectrum allocation once the spectrum is available for the existing operators as per their entitlement and their spectrum requirements is fully safeguarded upto the maximum prescribed limit, as per spectrum availability roadmap

c. It is submitted that **both policy – NTP-99 as well as the TRAI Act clearly requires** the Government to mandatorily seek the recommendations of TRAI in respect of '**need and timing'** for the introduction of a new service provider and not just for a new 'type' of service provider. We **thus strongly disagree with the understanding** that "***this provision refers to new types of license only.***"

d. It is submitted that it is the mandate of the Authority under the Act to protect the interests of service providers and consumers as also ensure orderly growth of the market and that consideration of need and timing for the introduction of a new service providers, after taking into account competitive scenario, financial sustainability and availability of spectrum" is a key critical requirement to ensure achievement of the objectives under the Act.

e. In this context, it may also be noted that the **Authority recommendations for the 4th CMSP** license in 2001 was not for a new type of license and further that while considering the issue, the Authority has **examined both the financial and economic considerations** for introducing more competition and **also the issue of availability of spectrum**.

f. It is submitted that the **issue of need and timing would necessarily include an examination** of all the above considerations, viz, **competitive scenario, economic and financial health** of the sector and most importantly, **availability of spectrum.**

g. It is thus submitted that that the **Authority should seriously consider capping the number of service providers, taking into account all the above considerations.**

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

a. No, while it **may be ideal in theory to leave** the issue of **number of operators in each service area to market forces,** it is submitted that, for the reasons highlighted / enunciated in pre-paras, **such an approach cannot be sustained in practice.**

b. **Operators** desirous of entering the market **may take their chances** and **acquire licenses** and **join the queue** for allotment of spectrum, and **given the Government policy would be eligible for and entitled to receive spectrum on the same basis as other licensees / operators.**

c. The **Government would thus have created "another mouth to feed". Having granted a license, the licensee cannot be starved of spectrum.**

d. Thus we **strongly believe that decision on the number** of access providers in every service area **cannot and should not be left to market forces**, but **should be decided by the Government / Regulator**, keeping in mind inter alia, the competitive scenario, the economic and financial health of the sector and the **availability of spectrum** vis-à-vis the **spectrum allocation guidelines of the Government**.

****