



Reliance Communications Limited

Comments on Consultation paper “Review of license terms and conditions and capping of number of access service providers.”

1 General Comments

1 Mobile Telecom Industry has undergone many changes since its inception. Initially this industry was highly fragmented and operators were providing services in few service areas. After the year 2000, cellular operators have started consolidating and building nationwide footprints. One of the driving forces for consolidation is to expand into other service areas and achieve the economies of scale. The abilities of pan-India operators to provide cheaper roaming services, attractive nation wide pricing plan- go on to prove that operators with larger scale of operations can achieve increased efficiencies.

2. The government has not specified any cross holding restrictions or Merger and Acquisition guidelines in the NLD and ILD carrier markets. Large NLDOs/ILDs which have rolled out networks across the country are competing vigorously in the carrier market and have made these markets very competitive.

3 The government has issued merger and acquisition guidelines only for the horizontal mergers in the same access market i.e. for merger amongst two access service providers in the same telecom circle. The license also has a restrictive clause on cross holding amongst service providers in the same licensed area. The merger and acquisition guidelines and license restrictions on cross holdings have been framed possibly to eliminate concentration of the market power and eliminate ability of a firm to raise the prices above the competitive levels.

4 The cross holding restriction clause in the license has served a purpose when the Government was licensing access services and there

were only 2 or 3 access service providers in a service area. This cross holding restriction ensured that multiple operators entered the wireless access market. Now with more than 5 to 7 operators in each service area, this clause is not relevant. The cross holding restriction has limited role for introduction of the competition but it is not required for protection of the competition. The cross holding limit of 10% is now only drawing an arbitrary line in the name of competition. The cross holding restriction is also proving to be one of the major impediments for raising fresh capital by service providers.

5 Spectrum is a limited resource and in the interest of competition it has to be ensured that it is utilized efficiently. One of the main objectives of the NTP'99 is to achieve the efficiency and transparency in the spectrum management. The analysis of allocated spectrum and subscriber base shows that number of subscribers per MHz of GSM spectrum in China are 235% more than number of subscribers per MHz of GSM spectrum in India.

6. There are serious flaws in the existing spectrum allocation methodology as it does not take into account the density of the population. The existing methodology is not promoting efficient utilization of spectrum and is also anti-competitive and anti consumer as it tends to exclude operators waiting to enter the market. The spectral utilization efficiency can be promoted by binding the access service providers so that they employ all the available technological innovations before demanding additional spectrum. This would ensure that market is not concentrated and remains competitive.

7 Many operators seeking additional spectrum claim that CAPEX for creating additional capacities is directly affecting their returns on capital

employed. It needs to be verified from the financial data of these companies whether it is a fact or a myth created to grab spectrum.

8. As per the published Merrill Lynch report, EBITDA margin in Indian Telecom Industry has expanded from 19% from the beginning of 2005 to 38% as of end 2006. The expansion rate has been one of the highest in India. Also the current margins are same as the World average of 38%. Interestingly on comparing the margins, India is higher than developed countries like UK, US, Australia, France, Germany, Spain, Korea and Japan.

• Also Publicly available financial data of a leading service provider shows that the EBITDA margin has expanded from 33% in 2004 to 40.2% in 2007

• Such high EBITDA margin may be seen along with the fact that the tariffs, ARPU, RPM are one of the lowest in the world.

9 CDMA and GSM technologies are used in three of the largest telecom markets viz. USA, China and India. China Unicom is one the largest mobile player in the world using both these technologies. Operators can use mix of these technologies to provide services in a most efficient manner. The CDMA operators have introduced genuine competition in the market and tariffs are continuously going down after their entry into the market. This competition has benefited every operator because the market has grown. The biggest beneficiary of this competition has been the consumer. The Authority should consider further promoting this competition by permitting use of any technology, especially when licenses are technology neutral and permit use of more than one technology.

10 The Indian Telecom growth is being studied world over and our regulatory practices being emulated in a number of countries. The farsighted vision of our regulators has ensured that the benefit of communication technology reaches every nook and corner of the country. The innovative ways of meeting USO objectivities is also a unique approach and its benefits would soon be available in more than 3 lakh villages with minimum support through subsidies.

11 Due to enabling regulatory regime, the operators have been able to achieve remarkable growth. All targets set in the NTP'99 have been achieved far ahead of time. Against the targeted teledensity of 15 by the year 2010, the existing teledensity in 2007 itself is 19.26. The rural teledensity is presently 6 against the target of 4 by the year 2010.

12. The decisions to be taken on important issues raised in this consultation paper are going to be the critical trigger for launch of next stage of competition in the telecom sector. We are sure that these decisions would be in the best interest of the consumers, service providers and in line with the objectives laid down in the NTP'99 relating to the efficient utilization of spectrum and would transform the telecommunication sector into a more competitive environment providing equal opportunities for all players.

13 Comments on some of the important issues raised in the consultation paper are:

- Mergers to be permitted in case there are at least four access service licensee companies including a public sector licensee company and merging entity does not have more than 40% market

share in terms of subscriber base and Adjusted Gross Revenue (AGR).

- The cross holding clause in the license is now outdated and has served its purpose and should be removed.
- The subscriber based spectrum allocation method be reviewed to ensure efficient utilization of spectrum.
- The spectrum allocation be capped at 10 MHz for all the operators irrespective of the technology adopted by them.
- The spectrum allocation to a merged entity be capped at 15 MHz.
- Since the license is technology neutral, cross technology spectrum should be allocated at the earliest to those operators who are desirous to rollout services in both the technologies.
- There should not be any cap on number of operators in the mobile market. Let the market forces decide the number of operators.

Our detailed comments on issues raised in the consultation paper are given below:

Q1. How should the market in the access segment be defined (see ¶2.22)?

- The wire line access network is least competitive as new private operators do not have wide spread network infrastructure and are unable to match the economies of scale and scope of the copper loop network of the incumbents. The incumbent operators have complete monopoly in the wire line segment.
- Cellular mobile telephone markets are competitive
- **In view of the above “Fixed” and “Mobile” access markets** should be considered **separate markets** and impact of merger may be independently examined for each of these markets.

- The “**Fixed**” market should also include **Fixed wireless phones and WLL (M) phones** which are part of the Basic Service.

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 answers.

- Subscriber base is one of the important parameters to compute the market share but it alone would not help to test the dominance. The revenue is another important factor which gives market power to an operator and an opportunity to skew the market and practise anti-competitive behaviour like predatory pricing etc. Therefore we need a model which compositely considers revenue and subscriber base to test dominance.
- To ascertain **subscriber base, the VLR data is more appropriate.** HLR subscribers are those who are registered with the Service Provider whereas a VLR subscriber is one who is active at a particular point in time.
- Even the existing spectrum allocation guidelines of DoT are based on VLR data and to keep a uniformity and transparency in the approach, we are of the view that VLR data will be more appropriate for determining the subscriber base.
- **The Adjusted Gross revenue Figures are appropriate criteria for estimating market share on the basis of revenue.**
- Both the subscriber base and the revenue be transparently analyzed so that **only those mergers may be permitted where market shares are less than 40% under both criteria.**

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?

- Mergers have the potential to generate significant efficiencies by permitting better utilization of existing assets, enabling the merged entity to achieve lower costs of production. Mergers subject to certain conditions also enhance competition by permitting comparatively two ineffective competitors to become one effective competitor. However in case of **few mergers the market may get concentrated with single or two operators.**
- When mergers result in few operators in the market, the harm to the competition may be so much significant that it may not be possible to offset the loss sufficiently by pro-competitive efficiencies. **Such mergers may** provide immediate benefit to the consumers through price cuts etc but in the longer term may **undermine competition.**
- **The existing limit of 67%** market share with the merged entity **can definitely threaten competition** and harm the public interest.
- Although TRAI, in its recommendations to the DoT in the year 2004, on Merger and Acquisition guidelines, had recommended

50% of market share as a permissible monopoly market share for merger, DoT had taken a higher percentage of 67% while issuing M& A guidelines. Presumably 67% might have been prescribed as there were only three or four operators at that time.

- With the 67% market share with the merged entity, the best HHI in a market left with 4 operators that can be achieved is around 0.48. It is more than **2 times the existing HHIs in most of the telecom circles**
- The existing indicators of falling tariff rates and high churn rate are indication of existence of robust competition in the market but **these indicia may change once the merged entity gains the significant market power.**
- **The concentration of markets facilitates exercise of anticompetitive or collusive behavior by market participants.** The substantial benefit of competition cannot be placed in jeopardy by permitting merger resulting in monopoly situation. It is therefore desirable that the market share of merged entity should be revised.
- Internationally, the market share of 40% and above is considered as unilateral power or the significant market power. With 40% market share and at least 4 operators including one public sector operator, it is possible to achieve the HHI of around 0.28 which is closer to the existing market concentration levels.

- In view of the international experience and need to maintain the reasonable market concentration levels, **we recommend that any merger resulting in market share of more than 40% in terms of the subscriber base and AGR with the merging entity should not be permitted.**

Q 4 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?**

- The maximum spectrum limit that should be held by a merged entity should be capped for the following reasons:
 - To ensure that the mobile communications market remain competitive.
 - To preserve incentives for efficiency and innovation
 - To prevent licensees from hoarding of spectrum.
- Today India is serving 135 million customers in GSM with the release of spectrum of about 37.2 MHz spectrum. This translates to 3.62 Mn subscribers per MHz. If we compare this with China, they serve 425 Mn GSM customers with of 50 MHz spectrum ie 8.5 Mn subscriber per MHz. In other words, **spectrum is not the limitation to serve the needs for targeted overall growth in the country.**

- It is also clearly mentioned in the Consultation Paper itself (Para 2.4) that the entry of more operators has led to exponential growth in subscribers and healthy interest amongst operators to deploy state of art technology & addition of innovative Value Added Services. In order to continue with the same positive trends, it is essential that 15 MHz Cap for the merged entity should be retained so that the healthy and positive competition is not taken out of the system. This necessary check is also important to ensure that no dominant position of any operator emerges to curtail the competition as envisaged under the Competition legislation.
- The maximum spectrum requirement is in the urban towns like Delhi, Mumbai, Kolkatta and Chennai and **leading operators while meeting the QoS parameters, also (except POI congestion which is not at all attributable to spectrum shortage), currently serve 2.5 to 3 times higher subscriber per MHz than the current allocation criteria.** The subscriber per MHz has improved over 70~90%. For example, in Delhi for March 2005, **the subscriber per MHz by the leading mobile operator was 1.6 lakhs subscribers per MHz which is now 3.1Lakh per MHz.** Therefore, far more customers have been added in the existing spectrum. We need to strive and achieve/better spectral efficiency of China. This can be managed by the operators by use of available spectral efficient technologies, sharing of sites, adding more BTSs for reuse of spectrum and indoor solutions for its coverage and quality needs.
- The Authority has put forth an argument in Para 6.38 of the consultation paper that the increased capex forces higher

investments and reduces return on capital expenditure, thus affecting service improvement in the long run. The Authority's concern can be fully appreciated. However it **needs to be verified whether operators' ROCE is actually going down or not.** Whether there is a genuine case that additional CAPEX deployment for new BTS for repeated use of the spectrum is actually affecting the margins of the operators or not.

- The Authority has also noted in Para 6.25 of the consultation paper that during 2006-07, **EBITDA margins of listed companies have increased from 34 to 40%.** Had there been any scarcity of spectrum leading to higher Capital expenditure, the same would have been reflected in the financial results. **The increase in EBITDA margins clearly shows that the efficient level of spectrum utilization has not been achieved.** CAPEX for setting up additional BTSs in few large cities in order to reuse spectrum and achieve spectral efficiency puts only marginal pressure on the margins or ROCE.
- The Authority in the Para 6.44 has rightly noted that **the scarcity of spectrum even for the existing operators is primarily based on the spectrum allocation criterion of the WPC.** The Mumbai and Delhi circles have same principle for allocation of spectrum though area of Delhi is around 4 times the area of Mumbai but populations are of the same level. Therefore **the benchmarks for spectrum allocation need to be reviewed immediately.**
- The engineering group of our company has carried out a detailed study on requirement of spectrum for achieving 500Mn subscriber base by 2010. It has come to conclusion that **with 10 MHz per of**

spectrum per operator, it is possible to achieve a teledensity of 80%.

- In case existing operators are allowed to aggregate large amount of spectrum without ensuring its efficient utilization then it would be possible for them, unilaterally or in combination, to:
 - exclude potential competitors;
 - to reduce the quantity or quality of services;
 - to increase prices.
- The NTP '99 stipulates (Para 3.1.1) ***“review the spectrum utilization from time to time keeping in view the emerging scenario of spectrum availability, optimal use of spectrum, requirements of market, competition and other interest of public. The entry of more operators in a service area shall be based on the recommendation of the TRAI who will review this as required and no later than every two years.”***
- The clause 23.5 of the UASL stipulates that the *frequencies shall be assigned by WPC from the designated bands prescribed in National Frequency Allocation Plan -2002) as amended from time to time, **based on usage, justification and availability, spectrum may be considered for assignment, on case by case basis....”***
- The clause 43.5 stipulates that **the maximum allocable frequency to CDMA technology is up to 5 + 5 MHz and for the GSM technology it is 6.2 + 6.2 MHz.** The clause 43.5 (ii) of the license is *“ 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.

However, spectrum not more than 5 + 5 MHz in respect of CDMA system or 6.2 + 6.2 MHz in respect of TDMA based system shall be allocated to any new Unified Access Services

Licensee. The spectrum shall be allocated in 824-844 MHz paired with 869 - 889 MHz, 890 - 915 MHz paired with 935 - 960 MHz, 1710 – 1785 MHz paired with 1805 – 1880 MHz.

- **The CMTS License also provides that the frequency up to 6.2+6.2 MHz can be allocated to the CMTS operators.** The clause 24.7 of the CMTS License stipulate that “ **The bandwidth up to maximum as indicated i.e. 4.4 MHz & 6.2 MHz as the case may be, will be allocated based on the Technology requirements. .**”
- The Provision relating to maximum allocable spectrum under the UASL on migration from the CMTS would have to be read in conjunction with the CMTS License. The clause 43.5(ii) of the UASL on migration from CMTS stipulates that *the licensee operating wireless services will continue to provide such services in already allocated/contracted spectrum*”.
- **Therefore operators do not have rightful claim beyond 5+5 MHz in the case of CDMA technology and 6.2+6.2 in the case of GSM technology.** The spectrum has already been allocated in the case of GSM systems beyond the contracted limit. It is desirable that the spectrum is not allocated to these operators beyond a certain limit which may give these operators leverage to

skew the market. **Already GSM operators have been allocated spectrum even up to 10 MHz i.e beyond the 6.2 MHz contracted spectrum, while the CDMA operators are still languishing at 5 MHz which is the contracted spectrum also. Thus a non level playing field has been created. This imbalance has to be corrected without further delay.**

- **The government is already in the process of award of 3G licenses and the uptake of these services will be mainly in commercial areas which, incidentally, are highly populated areas as well. This is going to release some pressure on 2G spectrum.**
- We have submitted above that **with 10 MHz of spectrum per operator, it is possible to achieve a teledensity of 80%.** Therefore the **upper limit of spectrum allocation in the case of all the operators should be specified as 10 MHz.**
- The existing ceiling of 15 MHz for the merged entity is appropriate and sufficient to meet the requirements and as such should be maintained as per the existing provisions in the M&A guidelines. The ceiling of 15 MHz of the merged entity will apply for all sorts of mergers. DoT has rightly kept this limit same- irrespective of kind of merger taking place, and thus, has maintained the technology neutrality of the license in true sense.
- The allocation of **spectrum beyond the 10 MHz** in the case of GSM based systems (which **is already much above the contracted amount**) would result in concentration of the market

with few existing operators. The availability of spectrum for new entrants and operators using alternate technologies would promote competition and at the same time ensure efficient utilization of the limited spectrum, operational efficiency and reduction of cost for the subscriber.

Q5: Should there be 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 it be defined?

- **Yes, there should be lower limit on the number of access service providers** in a service area. Else, this market may become highly concentrated amongst few players which may significantly impact competition.
- Limiting minimum number of operators in a circle would ensure competition and address concerns about potential anti-competitive behaviour.
- The monopoly in access market may also seriously distort other telecom markets like NLD, ILD, interconnection etc. There are numerous entry barriers relating to the wireless access services market, mainly being acquisition of spectrum rights. Therefore it may not be immediately possible to check the anti-competitive behaviour of merged entity in case merger leads to duopoly or monopoly.
- Therefore the Authority **in the context of M&A activities may consider recommending at least three access providers in addition to the PSU operator providing access services for any service area.** The presence of PSU operator in addition the three operators would help to protect competition.

Q 6: What are 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.

- The following conditions can be examined in case of merger:
 - Number of operators, post merger
 - Market share in terms of subscriber base and AGR of the merged entity- 40% or less can be permitted
 - Assurance to surrender spectrum if it crosses the specified spectrum limit of 15 MHz.
 - Analysis of RIO in case merged entity is significant market power.
 - Approval of other statutory bodies like DoT, TRAI, TDSAT, SEBI, Competition Commission

Q 7 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.

- The ex-ante approach is the internationally accepted approach for regulating mergers. The existing approach to examine mergers is ex-ante and the same may continue.
- The DoT should bring out a comprehensive detailed guidelines on mergers which inter-alia contain all quantitative conditions discussed in Q 6 for examination of merger applications.

Q 8 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.

Q 9 If yes, what should be the appropriate limit of substantial equity? Give detailed justification.

Q 10 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.

Q 11. 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?

- The cross-holding clauses in the license may have served a purpose when the DoT was first licensing Cellular or Basic Services and initially creating a competitive market for access services market and encouraging creation of infrastructure. **The cross-holding restriction is no longer necessary to preserve and protect the already established competition when at least 5 to 7 access service providers are existing in any service area and a number of others are awaiting award of license.**
- Following provisions exist today that fully ensure and strengthen the competitiveness of the sector:
 - Prior approval of the Department of telecom is necessary for merger of the licenses.
 - Merger of the license is permitted subject to the condition that there are at least three operators in that service area, consequent upon such merger.
 - Any merger, acquisition or restructuring leading to a monopoly market situation is not permitted. Monopoly market situation is defined as market share of 67%.
 - A strong and independent regulator which oversees the development of the sector and applies more stringent regulations for the operator having SMP.
 - A Telecom Disputes Settlement and Appellate Tribunal

- Besides these sector specific safeguards, there exist overarching bodies such as Competition commission of India and the MRTPC. Since most of the companies are listed, they are governed by SEBI as well.
- Cellular mobile marketplace is highly competitive and has grown remarkably since its inception. This growth is well documented. Almost 180 million subscribers are now using cellular phones. Now all service areas have minimum of 5 different service providers competing vigorously against each other.
- Clearly, today's mobile service market is very different from the way the market initially looked when the licenses for mobile services were issued. In earlier scenario when limited operators were providing services, the cross-holding clause arguably served a purpose in ensuring the development of multiple competitors.
- Concentrated markets with higher HHI are less competitive and more vulnerable to anticompetitive activity than less concentrated markets, moderate to high concentration is not necessarily a threat to competition.
- **The HHI of around 0.18 in all major markets is a clear indication that the market power is not vested with any operator.**
- The relative market position is further going to diminish after Authority sends its recommendations on issues raised in this paper as additional/new operators are likely to resume services in many telecom service areas. The government is also likely to issue 3G frequencies which would further enhance competition in the mobile service market.
- The cross holding restrictions are not there in carrier market like NLD or ILD service. However promotion of competition in these

markets made through presence of larger serious player has ensured that the market is not distorted through any anti-competitive behaviour.

- The access market also has large national players vigorously competing against each other. In this market any **regulatory impediment like cross-holding restrictions only hampers growth of the market and competition.**
- At this stage the **removal of the cross holding clause** from the Licenses will **not leave cellular market exposed and susceptible to anti-competitive behavior or harmful consolidation.**
- The mobile operators need high investments to rollout services in uncovered areas, and to improve the QOS in the already served areas. **The cross holding restriction at this stage may prove to be anti consumer as it may turnout to be a major impediment in raising fresh capital for rollout/improvement of service, without serving any useful purpose in promoting and protecting the competition.**
- **The Authority is therefore requested to recommend removal of substantial equity clauses from the access services licenses.**

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?

Q 13. Whether the legal person should be defined and if so the category of persons to be included therein and if not the reasons therefore.

- The person falling under the category of promoter/legal person should not be especially defined for the purpose of telecom licenses. Whatever is presently applicable under the Companies Act, 1956 may continue.

- The Indian jurisprudence as well as the principles laid down by judicial pronouncements clearly demonstrate that the specialized laws should deal with and should be relied upon for the purposes of interpreting Words & Phrases in relation thereto even when looking at any other legislation. “Promoter” is a word coined specifically for Companies Act and to give it a different meaning under Telegraph Act would be against the jurisprudential principles well established in the country.

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. For the level playing field, the PSUs should also be covered by the License clauses on cross holding and substantial equity.

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?

- The Licensee and the licensor are bound by the licensing conditions. The question of allocation of spectrum for technology

chosen by the licensee for providing wireless access services would have to be examined in context of agreed licensing conditions and not on the basis of any growth path so far followed by existing licenses. In this regard following license condition are relevant which clearly indicate that the UASL permits use of any technology and seek spectrum from the Government for selected technology:

- o Clause 2.2 (a) of UASL-

*“2.2 (a) The SERVICES cover collection, carriage, transmission and delivery of voice and/or non-voice MESSAGES over LICENSEE’s network in the designated SERVICE AREA and **includes provision of all types of access services.....**”*

Therefore, a UAS Licensee is authorized to provide all types of access services

- o Clause 2.2 (d)(i)

*“The LICENSEE is permitted to provide, SERVICE by utilizing **any type of network equipment**, including circuit and/or packet switches, that meet the relevant International Telecommunication Union (ITU)/Telecommunication Engineering Center (TEC) / International standardization bodies such as 3GPP/3GPP-2/ETSI/IETF/ANSI/EIA/TIA/IS .”*

This clause permits the licensee to provide the Services, by utilizing any type of network equipment that meets the requirement of ITU/TEC standards. The term ‘network equipment’ implies the physical equipment which would be technology specific. There is no embargo contemplated in this clause on any kind of system specific to any technology for deployment.

- o Clause 23.1: Technical Conditions

“23.1 The Licensee shall provide the details of the technology proposed to be deployed for operation of the service. The technology should be based on standards issued by ITU/TEC or any other International Standards Organization/bodies/Industry. Any digital technology having been used for a customer base of one lakh or more for a continuous period of one year anywhere in the world, shall be permissible for use regardless of its changed versions. A certificate from the manufacturers about satisfactory working for a customer base of one lakh or more over the period of one year, shall be treated as established technology.”

From the above, it is clear that the licensee is bound to use technology which is approved by ITU/TEC or any other international standard organization. **The clause enables a service provider to use any technology/technologies.** It does not specify any particular technology to be used.

o Clause 43.5 (i)

*43.5.(i) 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. While efforts would be made to make available larger chunks to the extent feasible, the frequencies assigned may not be contiguous and may not be the same in all cases or within the whole Service Area. **For making available appropriate frequency spectrum for roll out of services under the licence, the type(s) of Systems to be deployed are to be indicated.***

Here the clear indication is that the “type or types of systems” which the operator is going to deploy. The clause unequivocally explains that it is not one type of system which can be deployed but it is the types of systems which can be deployed.

o Article 71: Definition of UAS Provider

*“Article 71 Unified Access Service Provider (UASP) means a Licensee authorized to provide Unified Access **Services under a License in a specified service area.**”*

The definition of Unified Access Service Provider contemplates a UAS Licensee to provide more than one kind of access service and therefore UAS provider has been defined as a licensee authorized to provide Unified Access **Services**. The UAS Licensee is authorized to provide any kind of access service without any qualification of the type or the number of technologies that can be provided under the UASL.

- Many stake holders are of wrong view that the clause 23.1 requires the details of the technology proposed to be deployed for operation of the service. This view is derived from the fact that the term “technology” contained singular in clause 23.1 of UASL. In terms of well settled principle of interpretation contemplated by **Section 13 of the General Clauses Act, the term “technology” can be read as “technologies”**. Section 13 of the General Clauses Act clearly provides that unless there is anything repugnant in the subject or context, words in singular shall include the plural and

vice versa. Section 13 of the General Clauses Act is set out herein below:

“13. Gender and number:- In all (Central Acts) or Regulations, unless there is anything repugnant in the subject or context:

a. words importing the masculine gender shall be taken to include females; and

b. Words in singular shall include the plural, and vice-versa.”

- In the light of the above it is clear that the use of different technologies is permitted under the UASL. A separate growth path has been laid down in the spectrum linked guidelines for respective technologies. The enabling nature of the clauses outweighs the restrictive nature.
- The **merger and acquisition guidelines, at no place mention that the merged entity has to choose one growth path** in case of the merger between GSM and CDMA service provider. Following types of mergers are defined and permitted in the M& A guidelines dated 21.2.2004, under Para number 2 :

Merger of licence consequent to mergers/acquisitions or restructuring of the operations shall be permitted in the following category of licences:

- (i) Cellular Licence with Cellular Licence;*
- (ii) Basic Service Licence with Basic Service Licence;*
- (iii) Unified Access Services Licence (UASL) with Unified Access Services Licence;*
- (iv) Basic Service Licence with Unified Access Services Licence;*
- (v) Cellular Service Licence with Unified Access Services Licence;*

- The Merger and Acquisition guidelines provide even the guidance for spectrum utilization charging methodology in case the merged entity holds cross technology spectrum, under Para no 7, which is reproduced hereunder

“The spectrum utilization charges beyond 10 + 10 MHz for GSM based system and 5 + 5 MHz for CDMA/ETDMA based systems shall be prescribed separately. The merged entity will have to pay the prescribed charges from the date of merger of licences.”

- The **enabling nature of clauses of the UASL and Government’s Merger and Acquisition guidelines** mentioned above clearly indicate that a licensee can simultaneously provide telecom access services based on any technology. The scope of the UASL categorically specifies that the licensee can provide **all kinds of access services** without limiting the licensee to use any particular technology.
- The issue is to also to be examined in the context of introduction and emergence of new technologies and services like HSDPA, WCDMA, EVDO Rev A, Wi Max which would soon be deployed by the existing/new licensees in existing/new frequency bands. **A myopic view that only one technology is permitted for deployment would debar all existing access providers from deployment of new technologies under existing licenses.**
- The Unified Access providers are also permitted to deploy wireless access networks for Broadband. A number of UAS Licensees have applied for allocation of frequencies to deploy and offer these new kind of access services. A number of ISPs are already using these frequencies to provide broadband services. In case of merger of An ISP

Licensee with a UASL would automatically mean deployment of new technology to offer access service in a new frequency band.

- The UASLs have been formulated to give an option to the service provider to use any of the existing technology or adopt/migrate new technology which promises to provide better services in a more cost effective manner.
- The technology neutrality and flexibility available in the license helps the operators to adopt emerging technologies.
- **Therefore, the UAS License permits to provide all types of access services using any technology.** Any other interpretation of the license is illegal and also not in the interest of promoting competition, innovation or efficiency and would also be against the interest of consumer.
- **The fact that the alternate technology spectrum is permitted under the same license, has been acknowledged by GSM association COAI also in November 2006, when they had written a letter to DoT to define the priority in the allocation of 2G spectrum. In that letter, COAI had opined that operators seeking spectrum on alternate technology should be given spectrum after meeting the demands of existing and new licensee.**

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;

- **The license permits use of any technology** to provide wireless access services and therefore question of permitting or not permitting does not arise.
- **The entry fee payable at the time of acquiring UASL is to obtain the license and not for acquiring the spectrum.**
- The scope of UASL is vast and for all kinds of services, the spectrum is not necessarily required to provide all kinds of services. Infact, the license does not guarantee spectrum as it is subject to the availability. Therefore, no additional payment is payable on acquisition of any spectrum for the alternate technology.
- The license fee on the basis of revenue is payable even if no spectrum is allocated to a licensee.
- NTP 1999 also stipulated that Entry fee is for license and spectrum fee is being taken over and above that, in form of revenue share

The WLL frequency shall be awarded to the FSPs requiring the same, based on the payment of an additional one time fee over and above the FSP entry fee. The basis for determining the entry fee and the basis for assigning WLL frequency shall be recommended by the TRAI. All FSP operators utilizing WLL shall pay a licence fee in the form of a revenue share for spectrum utilization. This percentage of revenue share shall be over and above the percentage payable for the FSP licence.

Further it states under para 5:

There is a need to have a transparent process of allocation of frequency spectrum which is effective and efficient. This would be examined further in the light of ITU guidelines. For the present, the following course of action shall be adopted.

- *Spectrum usage fee shall be charged.*

Thus from above two references, it is clear that only spectrum fee is payable in case of allotment of spectrum under cross technology.

- For allocation of spectrum for alternate CDMA/GSM technologies, **the AGR accruing against each type of technology shall be calculated separately for the payment of spectrum fee as per the prevailing guidelines.**
- There is a separate growth path for each technology. **The operators wishing to deploy the second technology should be allocated spectrum for the second technology as is allotted to any other operator.**
- It would be in the interest of the natural justice that the operator in such a case should be **charged for the spectrum charges based on the revenue accrued from the subscribers using the second technology.**

Q 17 What should be the priority in allocation of spectrum among the three categories of licensees given in ¶4.16 of the chapter?

- **At present spectrum allocation is made as per availability** and there are no clear cut instructions on priority.
- In normal course, when there is no written instructions on the subject it is just and equitable to assume **the spectrum should be allocated transparently.**
- **Most of the operators have already been allocated spectrum contracted under the license and therefore such operators should not get any priority for allocation of additional spectrum**

- The operator using the **alternate technology should be given preference due to existing network availability and better rollout capabilities** so that the limited spectrum can be utilized quickly and more efficiently.
- There is an open and free competition in the government licensing policy and the number of operators in each category is not fixed. The spectrum is available in limited quantity. **In view of this it would not be logical to reserve any spectrum for any operator, existing or new. This will be against the natural justice to deny spectrum to someone because of its reservation for the existing operators. Such reservation is also against the policy of optimum utilization and efficient utilization since the spectrum cannot be allowed to be wasted by keeping it reserved for the future.**
- The Authority has correctly noted in Para 6.44 of the consultation paper that the scarcity of spectrum for the existing operators is primarily based on the spectrum allocation criterion of the WPC which does not take into account the density of population.
- **Review of benchmarks for allocation of spectrum** is required as large number of technological innovations have taken place during the last three years, and, practically, the existing service provider are able to provide even more than 30 Lakhs subscribers with 8-10 MHz of spectrum which was not possible even with 15 MHz of spectrum 2 years back.
- The maximum amount of contracted spectrum has already been allocated to most operators. **The cap on maximum allocable spectrum is prescribed** so that markets do not get concentrated with few operators and spectrum could be used efficiently.
- In view of the above we recommend:

- **No allocation of spectrum for existing operators if they have already got the maximum amount of contracted spectrum**
- **Review benchmarks** for subscriber linked **allocation of spectrum**. Spectrum allocation should be pegged to 10 MHz immediately.
- **Priority for allocation of spectrum could be given to the existing operators who want to deploy alternate technologies.**

Q 18 Whether there should be any additional roll out obligations specifically linked to the alternate technology, which the service provider has also decided to use?

- **License permits use of both the technologies** and as such allocation of frequencies to alternate technology cannot be construed as any concession being given to an operator for permitting to uses both the technologies. **A different rollout obligation based on use of technology- single or mixed, would not be sustainable on the touchstone of Article 14 of the constitution.**
- **Even though the operator seeking spectrum for alternate technology has already proved its credentials by meeting the roll out obligation, yet as an abundant precaution to ensure that the spectrum for alternate technology is utilized, the TRAI/Government may prescribe some roll out obligations.**

Q 19 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?

- The initial allocation of spectrum shall be in terms of the clause 43.1 of the UASL which provides that initially a cumulative maximum of up to 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.
- Allocation of spectrum for future requirement should be on the basis of guidelines based on subscriber criteria for each technology. **The existing allocation guidelines need review** as large number of technological innovations have taken place during the last three years, and, practically, the existing service provider are able to provide even more than 30 Lakhs subscribers with 8-10 MHz of spectrum which was not possible even with 15 MHz of spectrum 2 years back.
- In terms of the main objective of the NTP'99 for efficiency in spectrum management we recommend **that the government should specify a spectrum cap of 10 MHz and in the case of merger, the spectrum cap should be 15 MHz.** In case spectrum cap is not specified, the operators would not be efficiently using this spectrum and at the same time would block entry of new potential competitors.

Q 20 Should present roll out obligations be continued in the present form and scale for the Access service provider 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.

- Yes the existing rollout obligation should continue.
- To avoid cherry picking or entry of non-serious players, who can skew the market certain rollout obligations are necessary, we believe rollout obligations under UASL would address the problem to keep non-serious players at bay. We therefore recommend the **present rollout obligation should continue.**

Q 21 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?

- **No. The licensor should continue the practice of taking PBGs as surety for rollout obligations.**
- Performance bank Guarantees is a kind of surety with the licensor for fulfilling promised rollout obligations. PBG is one of the means to check non-serious operators. **Therefore PBGs be may be asked as surety to the licensor.**

Q 22 Should rollout obligation be again imposed on the existing NLD licensees? If yes, then what should be the rollout obligations and the penalty provisions in case of failure to meet the same.

- Yes rollout obligations be imposed on the NLDOs.
- Withdrawal of rollout obligations on NLD operators has totally skewed the NLD market. Many operators are offering NLD services in few lucrative metro cities. These operators are charging calls between these metro cities at local rates clearly indicating that the carrier market is being cross subsidized through the access market.
- NLDOs are finding it difficult to rollout services in far-flung areas as lucrative markets have been cherry picked by new NLDOs. There are still many areas in the country which have not been covered and a reliable network is not in place.
- **In order to pass on the benefit of better services to all areas, we request the Authority to recommend rollout obligations for NLDOs so that network rollout in not so lucrative markets is not ignored.**
- **The original rollout obligation of setting up a point of presence in each long distance charging area be again imposed on NLDOs.** The LD clauses should also be inserted in the clause to ensure rollout obligation and infrastructure building.

Q 23. What additional roll out obligations be levied on ILDO operators?

- Initially a rollout obligation for setting up of four points of presence was there for the ILDOs. These **POPs** were required to be **setup in each part of the country**. The same obligations can be re-imposed and clause relating to LD reinserted in the license.

- Thus the entire population would get the benefit of the rollout of ILD and not any particular area or region of the country

Q 24. What should be the method of verification of compliance to rollout obligations?

- The present procedure of self certification is appropriate to verify rollout obligations. As per this procedure service providers carryout various test procedures and along with self-certified test results/reports apply to TEC for carrying out service test. TEC on the basis of documents or if required on re-testing may issue certification. The date of submission is now considered as effective date for meeting rollout obligation.
- We do not see any role of VTMs in test certification.

Q 25. What indicators should be used to ensure quality of service?

- Indicators to ensure quality of service have been specified in the TRAI's QoS Regulation and TEC test schedule. Subject to certain changes, especially relating to the indoor coverage, the same can be used to ensure quality of service.

Q 26 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.

- No new rollout obligations should be specified. The universal objectivities can be met through existing USF and by providing

incentives to the operators for rolling out services in the rural areas.

- The innovative way of meeting USO objectives through two part tender for passive and active infrastructure was a great success. A robust infrastructure of 7871 towers would be setup with support of only Rs 300 Crs approximately from the USOF. The telecom services will be available to more than 3 lakh villages with minimum support from subsidies.
- The telecom infrastructure can be replicated in rest of the uncovered areas through a support of around another Rs 2000 crores. At present more than Rs 10000 crores is lying unutilized in the USOF. With the existing corpus it is possible to achieve universal service objectives.
- In view of the above we feel the universality objectives can be met through USOF.

Q 27 In case of rural roll out obligation, whether number of BTS in a certain area a viable criterion for verification of rollout obligation?

- The number of BTS is not a viable criteria as it depends on the topography, population density, network architecture and number of other criteria. Therefore number of BTSs cannot be criteria for verification of rollout obligations.

Q 28 What should be the incentives and the penalties w.r.t. rural roll out?

- **There should not be any rural rollout** but incentives can be provided to push operators to rollout services in the rural areas.

- The **spectrum requirement in rural areas is low and therefore it should not be taxed (spectrum charges)**. The license fee is also levied primarily for contribution towards USO Fund. When an **operator is rolling out services in the rural areas, the payment towards license fee from rural subscriber is not justified**. Therefore **we are of the view that the spectrum fee and license fee should not be charged on revenue generated from the rural subscribers. The definition used in TRAI's TTOs can be used to identify Rural subscriber**
- The existing corpus is more than sufficient to meet the universal objectives. Therefore the Authority may consider **rationalization of License fee contribution for meeting Universal Obligations**. The License fee contributions are ever mounting because of increase in telecom revenues and therefore even if USO license fee is reduced in stages, there would not be any major impact of license fee contributions. Since license fee burden is ultimately passed on to the consumers, the license fee rationalization would ultimately be in the interest of consumer
- In view of the above we recommend that:
 - **Additional rollout obligations for rural rollout should not be specified**
 - **Benefits like no license fee and spectrum fee on rural subscribers would encourage operators to rollout services in the rural areas.**
 - **Existing corpus of USO fund is sufficient to meet universal service objectives and therefore the Authority should consider revision in USO contributions and the license fee downwards.**

Q 29. Should there be a limit on number of access service providers in number of operators and how many operators should be a service

area? If yes, what should be the basis for deciding the 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?

- **No, there should not be any limitation on number of access service providers in an area.**
- We do not agree with the economic theory of 'inverted U' put forth by the Authority to establish relationship between excessive competition and deterioration of services. The Indian mobile operators are adding innovating products and providing internationally best available services to the Indian consumer.
- The number of operators in India should be seen in the context of available demand. With around six million subscribers being added monthly and with the expansion of networks in uncovered areas, it is expected that this demand would continue for a long period.
- The excessive competition has not harmed any of the service providers as market size has grown and there is enough space for all the operators.
- To promote competition not only the existing competition but the potential competition is equally important. The potential competition pushes existing operators to continuously innovate and provide better quality of services to the consumers. The new entrant invariably comes with the latest technology to take on the existing competition.
- Further, even with 5-7 operators in each of the service areas, not more than 6-7 million subscribers are being added every month. This will take us many more years to increase the tele-density of 19.26 to the level of other developing and developed countries and

as such there is an immediate need to induct more operators in all the service areas.

- The potential competition prevents incumbent operators from exercising the market power, either collectively or unilaterally. Continuous innovation in the wireless access market and launch of new and improved technology is offering new opportunities for potential new entrants.
- The release of 3G services would also help to overcome the problem of spectrum. There is also possibility of launch of services through MVNOs especially after launch of new 3G services when operators may have capacity to share with re-sellers. ITU is already evaluating IP-OFDMA (Wimax) as additional radio interface for IMT-2000 technology. It is expected this technology in entirely new spectrum band would be available for deployment. Therefore by capping number of operators in the market we may close the entry of potential competition.
- The existing operators would become complacent and stop innovating and improve quality of service in case entry of new operators is debarred.
- There is no other sector of the economy where existing operators have been gratified through protection against the future competition.
- Therefore, putting a cap on number of operators would harm the competition and not serve the public interest. Any cap on number of operators would also be against the NTP'99 objective to transform the telecommunication sector to a greater competitive environment providing equal opportunities for all players.

- We feel instead of restricting entry of new operators, the TRAI and Government should continuously strive to explore ways to alleviate spectrum shortages subject to the caps mentioned in our response and promote competition. **The decision for optimum number of operators in each service area to be left to the market forces.**

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