ANNEXURE

RESPONSE TO TRAI QUESTIONS FOR CONSULTATION ON REVIEW OF INTERNET SERVICES

PREAMBLE

Internet service provision and its proliferation are dependent on few key ingredients. They are:

- Affordable customer premises equipment (CPE), for example PC,
- Access from the customer to the remote access server, whether a dial up, or ISDN or a lease line,
- Connectivity and the cost of the connectivity whether dial up or ISDN or leased,
- Unbundling of access,
- The time taken to connect,
- The services which internet can offer in addition to pure surfing or browsing,
- Availability of adequate and affordable bandwidth both national and international
- Same or similar regulation for same service irrespective of technology would help reduce arbitrage, and consequently the grey market

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Keeping these key ingredients in mind one should approach on the various questions in this document.

Q1. At present, there are 389 licensed ISPs out of which only 135 are offering Internet Services. Top 20 ISPs cater to 98% Internet subscriber base. In your view, is there a rational for such a large number of ISPs who are neither contributing to the growth of Internet nor bringing in competition in the sector? Suggest appropriate measures to revamp the Internet service sector.

There is no rationale for such a large number of dormant ISP licenses. These licenses were perhaps acquired due to the expected boom in

the dot.com during late nineties and became unattractive due to the dot.com bust in 2000. It also could be because they were so low priced, without any penalty for non-performance except a small amount of bank guarantee (PBG) which has not been en-cashed in most of the cases. In addition, there are the above constraints given in the pre-amble, which could have stunted the growth. Therefore,

- To the extent ISPs are dormant or inactive, forced consolidation or revoking of licenses is appropriate after warning to en-cash the BG
- Small scale operational ISPs will automatically get consolidated by industry forces

Q2. Due to limited availability of spectrum for wireless broadband access, and high cost of creating last mile infrastructure, many ISPs are left with only option to provide Internet dialup access services. With increasing penetration of broadband, what efforts are required to ensure viability of such ISPs in changing scenario? Please give your suggestions.

Allow the application of any technology or media to create points of presence (POPs), which can be conveniently accessed by the ISPs. Today, there is no regimented or institutionalised approach, especially in rural areas. For internet service affordable connectivity is the key. Let creation of POPs be incentivised. It is suggested that incentives or changes in licensing or any action that is required to be taken must be taken to improve connectivity by creating POPs. Therefore,

- Encourage creation of pops by application of technology
    - Last mile access should be allowed in any form technically possible and not restricted to limited media.
    - Different forms including wired, wireless, satellite, etc. can cater to different consumer needs
    - Broadband through both wired, wireless and satellite would benefit consumer
    - Local loop should be unbundled and made available to ISPs for providing access to their subscribers on residual cost based reasonable charges.

Q3. At present limited services are permitted under ISP licenses. There is no clarity in terms of some services whether they can be provided under ISP licenses. Do you feel that scope of services which can be provided under ISPs licenses need to be broadened to cover new services and content? Suggest changes you feel necessary in this regard.

Service provision has relationship to bandwidth, CPE, connectivity etc. There has to be difference between use of VOIP in CUG and under PSTN. The grey areas do create intrusion into the domain of other service licenses. With convergence of technology it would be most appropriate to define and broaden the scope of services and content under the ISP license. Therefore,

- Scope of ISP services should not be limited given technology convergence and well defined in the licence agreement
- IP based services should include web access, ecommerce, VOIP, IPTV, and any other IP based technological innovations, and
- Keep possible technology evolution in mind to define the scope of services to be covered under the ISP license

Q4. UASL / CMTS licensees have been permitted unrestricted Internet Telephony, however none of them are offering the service. ISPs (with Internet telephony) can provide Internet telephony within the scope defined in license conditions. The user friendly and cheaper devices with good voice quality are increasing Internet telephony grey market. Please suggest how grey market operations can be curbed without depriving users to avail such services?

In order to reduce the possibility of grey market operations due to arbitrage between various licences for the same service, harmonise the license fee, ADC and Spectrum charges across ISP and UASL licenses for providing VOIP and other services. This is necessary in the technology neutral and converged environment.

UASL/CMTS are legacy networks, whereas, VoIP is comparatively new. It would be hard to change over overnight to VoIP should there be no discernable commercial returns. Bringing in transparency and harmony in the licensing conditions for equal access would curb grey market. Allow equal access, charge appropriate license fee and let the ISP be governed by the interconnect agreements as for the UASL/CMTS. Therefore,

- **VOIP under ISP licence should be same as under UASL**
- **Restrictions on termination of VOIP traffic should be removed to allow for greater consumer benefit**
- Grey market operations will automatically cease when restrictions are removed and licensing conditions are harmonised.
- Let ISPs be governed by interconnect agreements as applicable to UASL
- They should be allowed termination charges for the dial up access and transit charges for the incoming VOIP calls routed through their network.

Q5. How to address the issue of level playing field amongst the licensees of UASL, CMTS and ISPs?

Same as for Q No. 4 above, however, the scope of the various licenses is very disparate. ISPs will not be providing fixed line or mobile telephone connections. VOIP by ISPs will be primarily for NLD/ILD calls. Therefore, subjecting ISPs to same entry fee as the UASL and CMTS may be counterproductive. Nonetheless, the license fee and ADC etc. must be the same in order to reduce the arbitrage. Therefore, gradual harmonisation of regulations to create level playing field for different licenses for same service would be appropriate.

Q6. The emerging technological trends have been discussed in Chapter 3. Please suggest changes you feel necessary in ISP licenses to keep pace with emerging technical trends?

The march of technology can not be stopped. Application of technology as it evolves is the key to success for cost effectiveness as well as service provision. Therefore,

- All emerging technologies should be promoted and allowed under ISP license
- Last mile access is getting updated globally and should be permitted for copper, fibre, cable, wireless, satellite
- Services are being updated globally and should be permitted with broadband, Internet, TV, mobility, etc.

Q7. The service roll out obligations under ISP license is very general and can be misused by non-serious players. Do you feel the need to redefine roll out obligations so that growth of Internet can be boosted both in urban and rural area? Give suggestions.

The roll out obligations are a passé under the present regime of ISP licenses, because neither there are incentives for roll out nor penalties for non-performance. In addition, there are constraints as stated in responses to various questions in terms of connectivity and licenses being technology, or CPE specific. Therefore,

The Key is cost effective connectivity allied with creation of POPS at strategic locations to provide access to users of all kinds. May be a regulatory provision that there must be a POP within a specified distance be helpful. Let there be incentives to create POPS.

- Rollout obligations will depend on last mile access technologies and therefore cannot be over specified
- Start of meaningful service with trials and subscribers should be specified so that serious players are attracted
- Rural coverage though important has not been included in roll out obligation under UASL. Therefore, it won't be proper to force ISPs to set up access networks in rural areas as part of roll out obligation.
- Access under Rural coverage must continue to be under UASL and CMTS licenses for connectivity

Q8. Do you feel that ISPs who want to provide unrestricted Internet telephony and other value added services be permitted

to migrate to UASL without spectrum charges? Will it boost Internet telephony in India? What should be the entry conditions? Give suggestions.

As mentioned above licensing conditions for providing a particular service under any license should be harmonised in the technology neutral and converged regime.

Migration to UASL would be counterproductive because of the cost involved in the migration even if with out a spectrum charge. ISP is not a switched public service. It is only a VAS which rides on a public service. Therefore migration may not be a solution for proliferation of any of the internet services of which VoIP just happens to be one. ISPs will primarily be providing long distance VOIP services (NLD/ILD) and not the local services or phone connections. Therefore, licensing conditions for ISPs providing VOIP could be same as for a NLD/ILD license. March of technology such as VOIP should not be stopped, but place appropriate regulation to curb grey market and arbitrage.

Q9. UASL / CMTS licensees pay higher regulatory levies as compared to ISPs for provision of similar services, do you feel that similar levies be imposed on ISPs also to maintain level playing field? Give suggestions.

UASL and CMTS are not compatible in terms of scope of services under ISPs. Therefore similar entry fee would be counterproductive for the two licenses. However, the license fee should be the same. For VOIP service provided by ISPs (primarily NLD/ILD) they should pay the same license fee (6% of AGR) and ADC as applicable to NLDOs / ILDOs. This is necessary to discourage grey market operations.

In addition, let the ISPs pay spectrum charges for any spectrum which they use for access by application of any access technology just like UASL.

Q10. Virtually there is no license fee for ISPs at present. The amount of Performance bank guarantee (PBG) and financial bank guarantee (FBG) submitted by ISPs is low. Do you feel the need to rationalise the license fee, PBG, FBG to regulate the Internet services?

To bring seriousness into this business a rationalisation of all fees and penalties is a must. Therefore,

- Meaningful entry fee and revenue share should be introduced and harmonised as for NLD/ILD license
- PBG can be tiered based on scope of operations and revenues so that smaller players are not penalised
- Penalty clauses can be introduced to ensure grey market operations don't occur

Q11. At present ISPs are paying radio spectrum charges based on frequency, hops, link length etc. This methodology results in high cost to ISPs prohibiting use of spectrum for Internet services. Do you feel that there is a need to migrate to spectrum fee regime based on percentage of AGR earned from all the revenue streams? Give suggestions?

As mentioned above, license fee, spectrum charges etc. should be harmonised across different types of licenses.

Therefore, spectrum charges -

- **should be independent of hop length etc. and**
- **should be paid for as % of AGR**

Q12. The consultation paper has discussed some strategic paths to boost Internet telephony, bring in level playing field vis-a-vis

other operators, and regulate the Internet services. Do you agree with the approach? Please give your suggestion regarding future direction keeping in view the changing scenario.

The march of technology, the evolution of applications, the proliferation of services and the combination of all these can offer the attendant benefits in terms of costs, easy availability at affordable tariffs and better quality of service which in terms would create a demand. Higher demand will create volumes, volumes will bring in economies of scale and that will bring in revenues for all. Therefore,

- The best way to boost Internet telephony or any internet related service is to legalise it and remove necessary restrictions about CPE etc.
- Instead let it be regulated so that those players who want to offer it should pay for it
- **The license/entry fees and other levies can be made higher for those wish to provide VOIP and or other services in line with NLD/ILD licenses.**
- **Harmonisation of entry fee and license fees irrespective of technology is a must and prerequisite to prevent arbitrage and grey market.**