410, Paharpur Business Centre
21, Nehru Place
New Delhi 110 019.
Fax No.: 011-26207526

June 13, 2008

The Chairman
Telecom Regulatory Authority of India
MTNL Telephone Exchange Building
Jawahar Lal Nehru Marg
Minto Road
New Delhi 110 002.

Kind Attn.: **Mr. S K Gupta-Advisor (Converged Network)**

Sub : **Consultation Paper on Issues Related to Internet Telephony**

Dear Sir,

We have carefully gone through the various issues raised in the Consultation Paper on Internet Telephony issued by the TRAI on 12th May 2008. At the outset, we would like to emphasise that various telecom licenses issued so far by the Government since 1994 are service specific. The scope of license clearly mentions the network and services which the licensee can provide and the terms and conditions thereof. The entry fee, the licence fee and the various other levies payable under the licence are determined by the Government keeping in view the services which the licensee can provide under the licence and the revenue potential thereof. In the technology neutral regime, the same service could be provided using different technologies having different capabilities. Simply because of a particular technology can be used for providing a number of other service as well, even though not permitted under the original licence, does not justify the Authority to enhance the scope of the license so as to allow the licensee to provide all those services which may be possible to be provided by the technology deployed. Such an action will lead to creation of non-level playing field between the various licensees who have been issued different licenses with widely varying terms and conditions . We believe that the Authority is responsible not only for looking after the interests of the subscribers but also the interests of the various

service providers who will be adversely impacted due to creation of any non-level playing field vis-à-vis other licensees.

For organized growth of telecom industry in the country, existence of fair competition between various players is an essential pre-requisite. Provision of level playing field for the various players is a fundamental tenant of fair competition. The ISP licenses of different categories (category A, B & C) were issued to a large number of ISPs (more than 300) virtually free. At the same time Access Service Licenses (Basic/Cellular/UASL) were issued on payment of a very high entry fee of more than Rs. 1650 crores for an all India UAS license. The scope of the ISP licenses is clearly limited to providing access to public internet through dial up or lease line circuits and for data transmission only. Technology for providing voice over internet is not a recent development and existed even at the time when ISP licenses were issued. The licenses specifically prohibited interconnection between ISP networks and PSTN/PLMN.

Though convergence of telecom IT and broadcast has taken place in some countries, converged licenses are not being issued in India so far. Even though a draft convergence Act was framed a few years back, the same was not finalised and introduced in the Lok Sabha/Rajya Sabha. Except for the implementation of UASL which the Government allowed for enabling the basic service providers to provide fully mobile services, the Government has taken no action on the recommendation of the TRAI for issuing Unified Service License (USL). Under these circumstances, we believe, to permit ISPs to provide Internet Telephony within the country will be unfair to Basic/Cellular/UASL service providers who have made huge investments in acquiring the licenses as well as setting up the networks/telecom infrastructure.

Telecom tariffs in India are almost the lowest in the world. Internet Telephony does not offer any cost advantage as far as local calls are concerned. It is primarily being used in other countries for making cheaper international calls on account of considerable saving in carriage charges. For NLD calls in India, the

maximum sealing carriage charge as per IUC Regulation is Rs. 0.65 per minute. The tariffs for NLD calls have already come down to the level of Rs. 1.00 to Rs. 1.50 per minute. Therefore, the scope of further reducing the tariffs for benefit of the consumers by allowing ISPs to provide Internet telephony is very much limited.

Internet Telephony is permitted to UAS and CMSP licensees since March 2006. Yet not even a single licensee is providing Internet Telephony services in India so far. If, Internet Telephony is so advantageous in terms of cost of provision of service, definitely most of the service providers would have chosen that technology. Of course, some of the NLDOs/ILDOs are using managed VOIP net works in the core segment of their networks with a view to reducing their carriage cost. In para 1.4.5 of the Consultation Paper the Authority has mentioned that this is apparently due to ambiguity in the term Internet Telephony as it is not defined in respective licenses resulting in uncertainty in scope of the service. We feel the Authority should define the scope of the service clearly and remove the ambiguity, if any, and assess its impact on the tariffs before allowing the ISPs Internet Telephony services to any phone in India.

In the light of the above general remarks, we are giving below our views on the various issues raised in the Consultation Paper (Chapter IV).

4.1 Whether Internet service provider should be permitted Internet Telephony services to PSTN/PLMN within India? If yes, what are the regulatory impediments? How such regulatory impediments can be addressed? Please give your suggestions with justifications. (para 3.10)

Ans: In our opinion ISPs should not be permitted to provide Internet Telephony Services to PSTN/PLMN subscribers within India on account of the various issues of non level playing field arising due to it.

4.2 Whether allowing ISPs to provide Internet Telephony to PSTN/PLMN within country will raise issues of non-level playing field? If so, how can they be addressed within present regulatory regime? Please give your suggestions with justifications. (para 3.11)

Ans: Certainly allowing ISPs to provide Internet Telephony services to PSTN/PLMN within the country will raise issues of non level playing field. These issues can be resolved by charging the same entry fee as to basic service licensees and NLD licensees. Internet Telephony is not likely to provide any major Advantage in terms of lower tariffs for local/intra circle calls. Therefore, the subscribers may primarily be using Internet Telephony for NLD calls within the country.

4.3 ISPs would require interconnection with PSTN/PLMN network for Internet Telephony calls to PSTN/PLMN. Kindly suggest Model/Architecture/Point of Interconnection between ISPs and PSTN/PLMN? (para 3.12)

Ans: At present all PSTN / PLMN networks use circuit switching technology whereas all ISP networks are packet switched. Therefore, suitable gateways will have to be installed for interconnection of circuit switched networks and IP based networks. In the technology neutral environment the architecture and the technology to be adopted for interconnecting ISP networks with PSTN/PLMN should be left to the choice of the concerned service providers rather than being mandated by the licensor. ISPs should be permitted to interconnect their gateways with the GMSC of the Cellular Mobile Service Provider and Level I/Level II TAXS of the PSTN service provider. It will be very uneconomical for the ISPs to establish interconnection at SDCA level.

4.4 Please give your comments on any changes that would be required in the existing IUC regime to enable growth of Internet Telephony? Give your

suggestions with justification to provide affordable services to common masses? (para 3.12)

Ans: Internet Telephony may be advantageous only for the NLD service. ISP will therefore, be providing primarily the same service as an NLDO. In case PSTN/PLMN subscribers are to be provided access to Internet Telephony provided by ISPs, the origination charges may have to be prescribed by regulation as in the case of termination charges. The ceiling carriage charges for calls routed over public internet may have to be separately laid down lower than the carriage charges permitted for circuit switched NLD network.

4.5 What should be the numbering scheme for the Internet Telephony provider keeping in view the limited E.164 number availability and likely migration towards Next Generation Networks? Please give your suggestions with justifications. (para 3.13)

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4.6 UASL and CMTS operators are allocated number resources and permitted to provide Internet Telephony including use of IP devices/Adopters. Whether such devices should be allocated E.164 number resource to receive incoming calls also? If so, whether such number resources should be discretely identifiable across all operators and different than what is allocated to UASL and CMTS to provide fixed and mobile services? Give your suggestions with justifications? (para 3.4)

Ans: Uniformity of numbering plan for all voice services irrespective of whether circuit switched or packet switched networks are deployed is necessary for the convenience of the subscribers. Therefore, in our opinion E.164 numbering scheme should be adopted for Internet Telephony as well. Separate service access code or levels could be adopted for providing Internet Telephony service. Additional numbers could be made available by suitably increasing the number length. For packet switched network E.164 number would be mapped to a specified IP address allocated by Internet

Assigned Numbers Authority (IANA). The existing licenses will have to be amended if ISPs are permitted to provide Internet Telephony and interconnection to PSTN/PLMN. E.164 number should also be allocated to any IP devices / adopters if deployed by UASL and CMTS providers for providing Internet Telephony under their present licenses so as to enable these devices to receive incoming calls as well.

4.7 If ISPs are allowed to receive Internet Telephony calls on IP devices/Adopters, what numbering resources should they be allocated? (para 3.13)

Ans: As mentioned above, numbering scheme for all telephony services irrespective of the type of network deployed should be based on E.164 numbering scheme. This is absolutely necessary for the of the convenience of the subscribers for remembering the telephone numbers. If ISPs are allowed to receive Internet Telephony calls on IP devices/adopters they should be allocated adequate numbering resources. The IP addresses allocated to these devices by IANA will have to be translated into corresponding E.164 numbers.

4.8 Is it desirable to mandate Emergency number dialing facilities to access emergency numbers using Internet Telephony if ISPs are permitted to provide Internet Telephony to PSTN/PLMN within country? If so, should option of implementing such emergency Number Dialing Scheme be left to ISPs providing Internet Telephony? Please give your suggestions with justifications. (para 3.14)

Ans: Emergency number dialing if, mandated, should apply across the board to all telephony access service providers irrespective of whether they deploy circuit switched, packet switched, managed VOIP network or use internet cloud. This is necessary for providing not only the level playing field between access providers but also for the benefit of the subscribers.

Internet Telephony with relatively poor quality and non availability of facilities like emergency number dialing can not be justified on grounds of cheaper service.

4.9 Is there any concern and limitation to facilitate lawful interception and monitoring while providing Internet Telephony within country? What will you suggest for effective monitoring of IP packets while encouraging Internet Telephony? Please give your suggestions with justifications. (para 3.15)

Ans: All facilities for lawful interception and monitoring of calls will have to be provided by the ISPs providing Internet Telephony service. Irrespective of the cost involved suitable interception equipments will have to be provided by ISPs at Internet Telephony gateway. For the sake of security of the country no relaxation should be given to ISPs with a view to reducing their Capex which may adversely effect their ability to provide cheaper service. Uniform standards for encoding and encryption should apply to all types of telephone services irrespective of the network deployed. The licensor will have to ensure strict implementation of various provisions in the licenses relating to monitoring and interception.

4.10 Is there a need to regulate and mandate interoperability between IP networks and traditional TDM networks while permitting Internet Telephony to PSTN/PLMN within country through ISPs? How standardization gap can be reduced to ensure seamless implementation of future services and applications? Please give your suggestions with justifications. (para 3.16)

Ans: If, Internet Telephony is to be successful, its interoperability with traditional PSTN/PLMN networks will have to be ensured. Since standards for IP networks are still being evolved, it may not be desirable to mandate any specific standard for interoperability without indepth study of the complexity and the cost involved. As the deployment of NGN networks

in India progresses, the service providers will themselves adopt protocols and devices which can inter operate with each other. In the absence of interoperability each network will be like a Closed User Group (CUG). Therefore, ensuring interoperability of various networks is absolutely essential. For the present, we may adopt ITU standard H.323 which ensures high degree of interoperability between IP based networks and legacy based telephony services.

4.11 Is there a need to mandate QoS to ISPs providing Internet Telephony to PSTN/PLMN within country? Please give your suggestions with justifications. (para 3.17)

Ans: In order to ensure that subscribers are not provided poor quality services by ISPs providing Internet Telephony service, the minimum standard of quality of service must be prescribed otherwise the access providers offering PSTN/PLMN service and the ISPs offering Internet Telephony for NLD calls to PSTN/PLMN subscribers may pass on the buck to each other for the poor end to end quality of a long distance call. For IP based networks maximum one way latency, jitter and packet loss as well as R – value should be laid down for a reasonable toll quality speech as expected of PSTN/PLMN networks.

Thanking you,

Yours truly,
For **BPL Mobile Communications Ltd.**

D B Sehgal
Advisor
Mob : 9811992700

Encl : as above