



COAI Response

to

TRAI Consultation Paper No. 2001/4

ON

Introduction of Internet Telephony

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1. Does the introduction of Internet Telephony help achieve any or some of the policy objectives outlined in the NTP 99? If so, how?

- a) One of the key objectives of NTP 99 is to make available affordable & effective communications for all citizens.
- b) Introduction of Internet telephony will have the effect of completely revolutionising the long distance market, as it will make available long distance calls at near local call charges. This may encourage the spread of internet to rural areas as it will make the service more viable.
- c) To this extent, Internet telephony will help achieve the objectives of NTP 99.

2. In case Internet Telephony is permitted, whether it should be through the present ISPs? If so, will the ISPs, then be regulated as a Value Added Service provider or as an operator of a Public Telecom Service such as BSOs, MTO, CMSOs etc.?

- a) All Access Providers who have paid significant sums of money as license entry fee and are already licensed to offer voice telephony services, should automatically be allowed to offer internet telephony services. Any increase in traffic volumes due to internet telephony would be reflected in the revenues of these operators and consequently in the annual revenue share license fee that is payable to the Government.
- b) As regards the NLDOs & ILDOs, they are licensed carriers of voice services and should therefore be automatically allowed to carry voice over the public internet or any other transmission media of their choice.
- c) In the case of ISPs, they are presently licensed only to carry data. If they are to be permitted to use their infrastructure to carry voice, then they should be required to pay an additional fee for the right to carry voice. This fee, which should include both an entry fee & revenue share component, may be based on the recommendations of the Regulator to bring them on par with other carriers of voice services.
- d) ISPs who pay the above additional fee should then be re-designated as ITSPs & allowed to carry both voice & data.
- e) If the ITSP also wants to have direct access to the customer, then he should also be required to apply for an access providers' license.
- f) Once the above is ensured, ITSPs too, should be regulated as operators of a public telecom service.

3. In case ISPs are permitted to offer Internet Telephony, will it necessitate some modifications in the terms and conditions of the existing operators

such as BSOs, CMSOs, NLDOs, because of bypass of their network for voice calls?

a) Internet telephony will completely change the face and structure of long distance services. Consequently, introduction of this service will impact all carriers of long distance calls.

b) In the light of the above, it may become necessary for TRAI to review the terms & conditions of NLDOs & ILDOs to ensure level playing field conditions.

c) In this context, we would also like to state that once the Government is considering the bold and progressive step of opening up / introducing Internet telephony, then the present policy of continuing to deny direct inter-circle connectivity to FSPs & CMSPs as clearly provided in NTP 99, is clearly illogical, anomalous and untenable. COAI thus believes that seamless interconnections between service providers across service areas should in fact precede the introduction of Internet telephony.

4. Whether Internet Telephony i.e., telephony on Public Internet be permitted, considering the fact that it will mean a bypass of the PTOs toll network ?

a) There should be no artificial barriers that prevent the delivery of more affordable services to the consumer.

b) The only issues that need to be resolved are the regulatory aspects as to how the introduction of this new service will impact the market potential & licensed rights of existing operators.

c) TRAI must therefore undertake a comprehensive & transparent study / evaluation on the impact of introduction of internet telephony on the financial viability of existing operators & accordingly review of the terms and conditions, especially the entry fee of NLDOs & ILDOs to ensure level playing field vis-à-vis the entry fee / revenue share of ITSPs.

5. If the answer to (a) above is yes, who Should be allowed to offer Internet Telephony:

i. ISPs only by a process of migration

ii. All Access providers?

iii. New entrants including existing players under a new operating category called Internet Telephony Service Providers?

a) As indicated above, all Access Providers who are licensed to provide voice telephony should be permitted to offer Internet telephony services.

b) NLDOs & ILDOs are licensed carriers of voice services and should therefore be automatically allowed to carry voice over the public Internet or any other transmission media of their choice.

c) In the case of ISPs, since they are presently licensed only to carry data, they should have the option to also carry voice, but only upon the payment of an

additional entry fee & revenue share including payment for USO. This levy should be recommended by TRAI after ensuring level playing field conditions.

d) New entrants who want to enter into Internet telephony + data services would have to obtain an ITSP license, upon payment of such entry fee & revenue share and subject to such terms and conditions as may be determined by TRAI.

6. If answer to 2(b)(i) is yes, should conditions of the licence of existing Internet service providers (ISPs) remain same in case they are permitted to provide Internet Telephony or they should be modified to reflect the change in the scope of their service.

a) ISPs who migrate to an ITSP license will have to pay the entry fee + revenue share and be subject to such terms & conditions as are determined for the ITSP license. These terms & conditions should be such as to bring the ITSP on par with the long distance carriers - i.e. NLDOs & ILDOs.

b) ISPs who want to continue to offer only data services, will not require any change in their terms and conditions.

7. Should PC to PC voice service be regulated?

a) PC to PC voice is also a part of Internet telephony and should be included under the purview of an ITSP license and appropriately regulated.

8. How do we define Internet Telephony? Should it mean PC to PC voice transmission using public Internet, or also PC to Phone (in other country) as well as Phone to Phone without any restrictions?

a) Transmission of voice over the public Internet, irrespective of the terminal at the subscriber-end, should come under the purview / definition of internet telephony.

9. Whether 'Internet Telephony' should also include Fax over IP?

a) Online fax should be treated at par with online voice.

10. Should the new licencees for the Internet Telephony be mandated to use the Access Network of BSOs, or have their own facilities in the last mile including CPEs?

a) Providers of Internet telephony services must use the access network of FSPs and CMSPs to reach the end-consumer. If an ITSP is desirous of having his own facilities in the last mile to access the end-consumer, then he must obtain an Access Providers' license.

11. As far as the carriers are concerned, should they be permitted all three options shown in figure 4, or allowed only the managed VOIP option shown as option No. 2 of the diagram, so as to ensure a specified QOS end to end, in the interest of the consumer?

a) There should be no bar to use any network configuration by carriers so long as end-to-end QOS / connection established through the network is ensured.

b) While at present, the public Internet networks are not engineered in accordance with the principles of traffic engineering; the various algorithms and protocols (either developed or to be developed in future) could ensure acceptable QOS.

c) In this context, it may be stated that if Internet telephony is being envisaged as a cheaper long distance service, the same should be subject to minimal levies to ensure affordable tariffs.

d) However to ensure that internet telephony does not completely destroy the business case of NLD & ILD operators, TRAI must :

Either

- Drastically review the review the entry fee and roll out plans of the long distance operators to bring about level playing field conditions. In this context, it may be mentioned that the heavy entry fees paid by the NLDOs did not envisage the prospective introduction of Internet telephony.

Or

- Introduce Internet Telephony as a clearly differentiable service. In this context, we would like to draw the attention of the Authority to the case of Hungary, which has made 'quality' the explicit distinction in internet telephony services. Hungary has laid down specific quality parameters to distinguish internet telephony from customary voice telephony services. In Hungary an internet telephony service provider must These include :

- o Ensure a minimum 250 millisecond average delay in speech signal transmission between terminal devices.

- o Not guarantee that the loss of speech packets causing short interruption of speech will be less than 1%

- o Draw the users attention to the quality parameters that different from those of public voice telephony when publicising the service.

e) Thus if Internet Telephony is to be introduced as a clearly differentiated service, TRAI too must lay down similar quality parameters and strictly enforce the same. A clear service differentiation between Internet telephony & other long distance voice services will be warranted by the differences in license fee levies & roll-out obligations.

12. Considering the fact that the present generation Internet protocol (IP V4) and its associated protocols do not provide for QOS guarantees, should Internet Telephony be permitted to the ISPs, without specifying any QOS?

a) At the present stage of development and non-regulation of the public internet networks, it will be difficult to ensure a specified QOS end-to-end. Internet telephony may be permitted to be provided on a best effort basis alongside PSTN and managed VOIP networks. Market forces will determine the extent of usage of these services and their respective tariffs based of the QOS offered by each.

b) As mentioned earlier, if Internet Telephony is to be introduced as a clearly differentiated service, the TRAI must carefully lay down and strictly enforce the QOS parameters for the service.

13. Should there be a separate licence for Internet Telephony Service or some of the existing facility based Service Providers should be permitted to provide this service?

a) Existing licensees who are already permitted to offer voice services (CMSPs, FSPs) should automatically be permitted to offer Internet telephony services.

b) NLDOs & ILDOs too have a license to carry voice and should therefore be automatically allowed to carry voice over the public Internet or any other transmission media of their choice.

c) In the case of ISPs, who are only licensed to carry data, they should be permitted to offer Internet telephony after payment of an additional fee (both entry & revenue share) to acquire the right to carry voice.

d) New entrants, who want to enter into Internet telephony services, may be permitted to do so, upon payment of an entry fee & revenue share and subject to such terms and conditions as may be determined by TRAI.

14. In case ISP's are permitted to provide Internet Telephony, what terms and conditions be imposed on them to ensure a Level Playing Field, vis a vis BSOs/NLDOs/ILDOs?

a) These conditions should be determined based upon the recommendations of TRAI. TRAI should especially review the license fee levies & roll-out obligations of the long distance operators to bring them on par with the ITSPs.

15. Whether a separate category called Internet Telephony Service Provider be created or only the ISPs be permitted to provide Internet Telephony, with some modification in the terms and conditions of their licence?

a) Internet telephony is the carriage of voice across the medium of the public Internet. Licenses are already issued to NLDOs & ILDOs to carry voice.

b) ISPs who are licensed to carry only data need to be migrated to become voice carriers i.e. ITSPs at par with the above service providers upon modification of existing terms & conditions & payment of an additional levy to be decided in consultation with TRAI.

c) New Entrants wanting to enter into Internet telephony services, would be required to obtain an Internet Telephony license.

16. Does Internet Telephony really provide a cheaper option to conventional telephone service?

a) Yes, Internet telephony will provide a cheaper option to conventional telephone services, especially in respect of long distance calls - both domestic and international.

17. What impact the immediate introduction of Internet Telephony will have on:

i. Tariff rebalancing for domestic and International calls?

ii. Settlement rate system?

iii. Spread of rural telephony

a) Introduction of Internet telephony will no doubt have the effect of accelerating tariff re-balancing initiatives, especially in the case of India which despite two rounds of tariff rebalancing, is known to have amongst the highest long distance tariffs in the world,

b) As regards settlement rates, Internet telephony will bypass the settlement rate system, thus exerting a downward pressure on the settlement rates.

c) As regards its impact on rural telephony, introduction of Internet telephony may help advance the penetration of rural telephony.

18. What costing methodology should be used for fixing tariff of Internet telephony service?

a) COAI believes that the Regulator may specify a ceiling tariff in areas where the QOS can be specified.

19. Can Internet Telephony play any role in reducing the so-called Digital Divide?

a) In this context, we would like to quote Mr. N Vittal, Chief Vigilance Commissioner who has state " when internet telephony brings down substantially the cost of the telephones it is obvious that it is the poor and lower consumers who are going to benefit. Then why should the government if it is really pro-poor come in the way of internet telephony coming up?... The government must embrace it openly especially in the context of the thrust towards covering all villages with telephone services"

Mr. Vittal also goes on to state that that "if the urban rural divide has to be bridged, internet telephony in rural areas must be allowed. Who knows this itself can become an incentive for extending computer density as well as telecom density in the rural areas."

b) COAI is of the view that the introduction of Internet telephony will completely revolutionize the long distance market in India, which has till date been stifled / suppressed because of the high long distance tariffs. The significant increase in traffic volumes will have the impact of driving the thrust towards improving connectivity & increasing tele density.

To that extent introduction of Internet telephony would drive the initiative to bridge the digital divide.

20. Will infrastructure for Universal Service grow faster as a result of introduction of Internet Telephony?

a) In our view the introduction of Internet telephony will not have any direct impact on the growth of universal services in India.

21. Can immediate introduction of Internet Telephony have any impact on the rollout plans of facility based operators?

a) Introduction of Internet telephony may be expected to have a significant impact on the roll-out plans - especially of the NLDOs & ILDOs as it would offer a cheaper option for long distance calls.

b) In view of the above it may be necessary to review the entry fee and roll out plans of the long distance operators to bring about level playing field conditions.

c) As mentioned earlier, it would also be desirable to review the stance on direct inter-circle connectivity to FSPs & CMSPs. Seamless interconnections between service providers across service areas should in fact precede the introduction of Internet telephony.