



## Vodafone Response to TRAI Consultation Paper on Internet Telephony dated 22.06.2016

### Preamble

- A. At the outset we submit that Internet Telephony is not a new development, but has been around for several years, virtually since the onset of the internet. The reasons why it was earlier not allowed in India, was on account of the various challenges in laying down a regulatory framework for this service, which includes inter alia, a possibility of regulatory arbitrage, considerations on security, emergency number dialing, numbering scheme to be used, etc.
- B. The above factors /challenges continue to exist even though these services are permissible to an access service licensee; in fact these issues were examined by TRAI in 2008 itself, when it examined the framework of such a service and made recommendations to DoT on the same. No decision has been given by DoT on these issues.
- C. It is important to highlight that Internet Telephony, as envisaged in the Licensing and Regulatory Framework, has to meet following basic pre-requisites:
1. It can only be provided by a Licensee under Section 4 of Indian Telegraph Act who is an Access Service Provider (i.e. UASL/ CMTS/ UL(AS)/ UL with Access Service Authorization) or an Internet Service Provider (ISP), in a restricted form, and
  2. **Such Licensee must provide an Access Network (Last Mile) to its Subscriber to provide respective Access Services, including Internet Telephony.**

Therefore, Internet telephony can be provided by an Access Service Provider/ISP Licensee having Access Network to its Subscriber only.

**License, Access Network and Subscriber, all three, are *sine qua non* for any such service in Indian telecom licensing and regulatory framework.**

**The 2008 recommendations made by TRAI were within the ambit of the above stated licensing and regulatory framework.**

- D. In view of the above, it is submitted that **an Access Service Provider/ISP, is legally bound to fundamentally provide network connectivity, including access network, to its subscribers and only then it can offer any service under the respective license. In case of Internet Telephony the Access Provider/ISP Licensee which is providing Internet Telephony to its subscriber has a role and obligation to provide internet access to its subscriber.**
- E. **We respectfully submit that the current consultation is based on an incorrect premise that internet telephony can be provided by an Access Service Provider/ISP even though it has no access network. The consultation paper positions a licensee**



with an APP, but with no access network, as capable of providing internet telephony and its interconnection with PSTN/PLMN. This, we observe is a substantive deviation from the above framework in the current consultation, which deviation is neither allowed under the Indian Telegraph Act nor TRAI Act nor under the respective Licenses.

- F. The consultation paper further wrongly defines public internet to mean “Internet access of any other TSP” (Refer Question No. 3 of the consultation paper). The meaning of public internet has been completely changed in this consultation, as is evidenced from TRAI’s own recommendations of 18th August 2008 on same subject of issues related to Internet Telephony, where Public Internet was rightly defined as “Internet Cloud” (Refer Recommendations 4.2.1 and 4.2.2).

This change in the meaning of ‘public internet’ is not only a fundamental deviation but changes the whole framework of telecommunication as provided under the Indian Telegraph Act and the License. There is no justification or reason given in the consultation as to how an internet connection taken by a subscriber of an ISP or of an UASL/CMTS/UL(AS) can become a public internet which can be accessed by another TSP. Public Internet, which till now was in cloud and which could be accessed by the subscriber only through its ISP / UASL/CMTS/UL(AS), has now been changed to last mile access connection of a subscriber. This assumption completely ignores the licensing regime, which is stringent on re-selling of any kind by a non-licensee and where CLI modification and such call routing are prohibited.

As per 2008 consultation paper public internet was not at subscriber level but at a level after the Licensee’s gateway (i.e. the Internet is shown after ISP Network in figures below which are part of 2008 consultation paper):

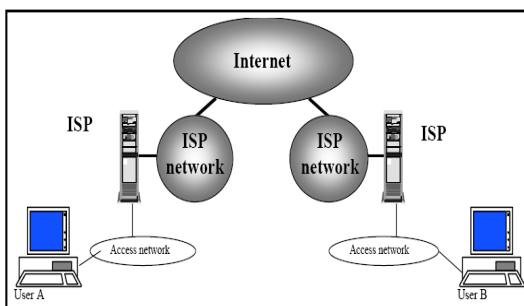


Figure 1 “Refer : Fig. 2.3 PC-to-PC Internet telephony”

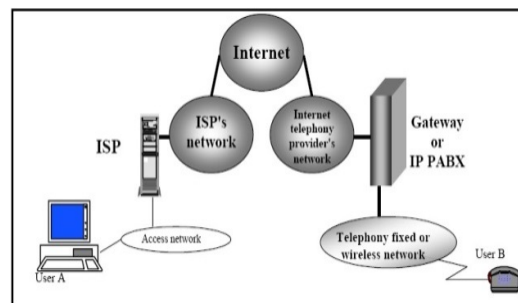


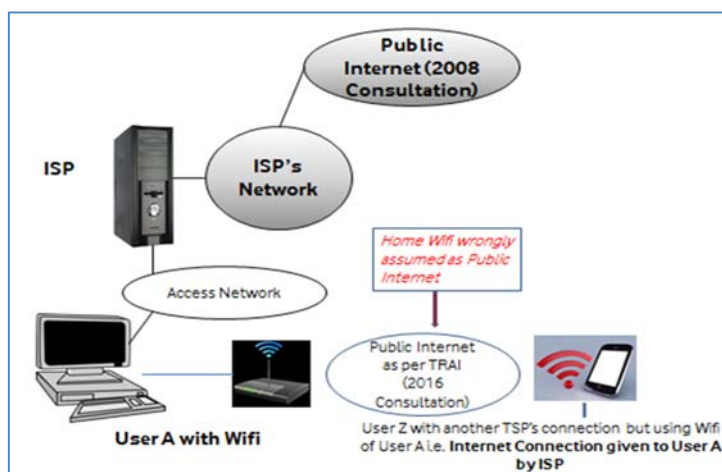
Figure 2 “Refer :Fig. 2.4 PC-to-Phone Internet telephony”

The current consultation has completely ignored key network elements like Access Network and ISP Network connecting to Public Internet. Question No. 3 of the current consultation paper reads as follows:



“Q3: Whether accessing of telecom services of the TSP by the subscriber through public Internet (internet access of any other TSP) can be construed as extension of fixed line or mobile services of the TSP? Please provide full justification in support of your answer.”

We respectfully submit that such access of telecom services of an ISP/TSP by its subscriber through internet access of any other ISP/TSP is illegal and not allowed under the current licensing regime. It is also not public internet but only access to the network of the ISP/TSP. Therefore the question of such an access to be categorized as extension of fixed line or mobile services of the ISP/TSP is a wrong question. A diagrammatic representation of what the consultation now defines as public internet and what was the definition in 2008 is shown below:



- G. The above premise needs to be fundamentally questioned in terms of its legality or permissibility under the license, its ramifications on service providers and these preliminary issues cannot be bypassed.
- H. **Such kind of so called 'internet telephony' or so called 'public internet' is not prescribed in our Licenses. If such internet telephony is allowed then it will be in violation of the terms of the license since it provides undue benefits to a Licensee who has no access network, whereas access network is a *sine qua non* for acquiring any subscriber and providing service to that subscriber. A third Licensee or TSP who does not have coverage or connectivity at a place cannot provide any service by wrongly/surreptitiously riding on network access given by another Licensee /TSP to its respective subscriber.**
- I. Further, various examples given in the consultation paper of various kinds of SIP Calls (like SIP to PSTN Bridging, FMT value added service etc.) are all various forms of 'OTT Communication Services' seeking interconnection of their SIP servers with PSTN/PLMN networks.



It may be noted that FMT value added service which was proposed to be launched by BSNL was objected by industry being illegal and representations were made to DoT and TRAI. The said service was not launched by BSNL. Like FMT, the SIP to PSTN bridging, as explained in the consultation paper, is not even the internet telephony under the license terms. **We submit that this SIP to PSTN Bridging or FMT value added service lead to various anomalies and violations of current framework, which are explained hereunder:**

- An operator (say a TSP) does not have an access network at a place i.e. no coverage or poor coverage
- An APP is provided on the handset by that TSP to its Subscriber A which reads SIM and MSISDN of the mobile connection given by that TSP
- At such place with no coverage or poor coverage of that TSP, that APP connects to another internet service connection provided by another ISP. Such connection is made through WIFI connectivity on handset with authentication (through password permission) from subscriber who has taken internet connection from ISP.
- If Subscriber A of the TSP now wants to make a call, he cannot make it from TSP's network since there is no access made available by TSP. However, a call can be initiated by the APP using the WIFI at home and internet connection taken by subscriber of ISP. The ISP's access network will take the call to ISP's Gateway. The APP functionality will further route the call from ISP's Gateway to 'Public Internet (Internet Cloud)' to the SIP server of TSP. The SIP server address is given by TSP and not by ISP (which is one of the deviations from the license conditions regarding IP address of internet telephony call). The consultation is also wrong in assuming that access to telecom services of the TSP by its Subscriber A through internet access of any other ISP/TSP can be given. As mentioned above the consultation is misrepresenting "internet access of any other ISP/TSP" as public internet.
- Once the call is wrongly routed to SIP server of the TSP, the SIP server can identify the corresponding SIM and MSISDN of TSP's subscriber A through the information sent by the APP. It may be noted that till this stage there is no work done by the TSP in its licensed capacity as access provider and the call has landed on the TSP's SIP server via a totally internet access connection given by different ISP, that ISP's internet access network and from that ISP's gateway to Public Internet (Internet Cloud).
- After identifying the SIM and MSISDN the SIP changes the Call Data Record to include SIM and MSISDN, even though the call has not been generated from SIM or MSISDN. This has been held as illegal call routing by DoT and where penalty has been imposed on previous occasions by the Court on TSPs. Further, this sort of patching is same as illegal exchange where DoT has prescribed several checks and controls measures.
- Since the CDR of the call, after masquerading SIM and MSISDN, have same parameters like that of a normal call originated from TSP's own access network, such call can be sent by that TSP to other operator through interconnection established between that TSP and another TSP but such sending of call is in violation of interconnect agreement, which does not allow any such masquerading and such interconnect agreement is



only for calls originated from subscriber of a TSP and terminating on another TSPs network, which is not the case in such instance.

The consultation has ignored all the above aspects. Instead of looking at telecom, routing, licensing aspects it simply looked at such calling from Information Technology perspective and changed the focus of discussion on Routers, Registrar, SIP server etc. Such routing even by a TSP is not internet telephony and is held to be illegal in the past.

- J. The scope of ISP License and UASL/UL(AS)/CMTS provide for Internet Telephony in varied forms and respective scopes are subject to various conditions and yet to be decided procedures. This means that any entity providing such service must at least have a license else such service is illegal under the Indian Telegraph Act, 1885. However, it is an admitted position that OTT Communication Services are not presently subject to any regulatory or licensing regime and there are many relevant connected issues.

It cannot be more arbitrary and irrational if some VOIP cases like SIP to PSTN Bridging and FMT value added service, are viewed as telecommunication services, which require licensing, whereas other SIP based VOIP are seen as Information Technology service and hence not being brought under licensing and regulatory regime.

It will be equally arbitrary to assume that if a telecom licensee provides VOIP services then such VOIP services become licensed services (i.e. requiring license) and if a non-telecom licensee provides same VOIP services then these services are non-licensed activities.

**Hence, it is vital that the present consultation deal with Internet Telephony as permitted under license and not change the meaning to allow OTT Communication through 'APP' based calling using network of another service provider.**

**It may also be highlighted that as per the regulatory position taken so far, any APP service providing VOIP is not a telecommunication service. The key example of it is seen from TRAI's regulations on prohibiting differential tariffs for data services based on content, where VOIP and Messaging Services Apps have been defined as content. Thus, if a TSP intends to offer different rate for any or all such VOIP Apps, then it is barred from doing so under the Prohibition of Discriminatory Tariffs for Data Services Regulations, 2016 dated 8 February 2016.**

These regulations define content as follows:

"(e) "content" includes all content, applications, services and any other data, including its end-point information, that can be accessed or transmitted over the internet;"

**It is our respectful submission that the present consultation, therefore, cannot treat such VOIP as telecommunication service and further, on account of content being outside the purview of the TRAI Act, there is also an issue as to whether such consultation can even be carried out or any regulation be passed on the same.**



- K. The telecom networks, tele-density, quality of service, coverage, capacity, access etc. are some of the key expectations of Indian telecom subscribers which mean that investments in last mile are the key. In Indian Context this last mile is being provided mainly on mobile. However, if such calls be provided by a licensee without any network access given by it and by riding on other licensee's access networks, then no incentive will be left to make investments in the telecom networks. The TSP with no network will in this way unduly and wrongly attain the market share through APP and at the cost of the TSP who has invested in and provided the last mile. The Regulator under the Act is required to look after/protect the interest of service providers, not of APP providers and licensees who have not invested in the networks.
- L. We submit that even the internet telephony, which is allowed under UASL/UL(AS)/CMTS does not mandate interconnection of internet telephony network with PSTN/PLMN – under license, such interconnection is optional and not mandatory. Moreover, for internet telephony the IP address has to be assigned by the ISP giving the Internet Connection. It cannot be SIP server address/SIM/MSISDN number given by another TSP not providing internet access network or internet connection. Also conversion of IP address to E.164 numbering has to be as per instructions of Licensor and cannot be done by the licensee.

#### **A. ISSUE-WISE RESPONSE**

**It is submitted that our above Preamble along with Annexure A (dealing with relevant License Conditions) should be considered as part of the response to each question in the consultation paper.**

**Q1: What should be the additional entry fee, Performance Bank Guarantee (PBG) and Financial Bank Guarantee (FBG) for Internet Service providers if they are also allowed to provide unrestricted Internet Telephony?**

- a. As mentioned in the Preamble, which forms part of this answer, if the Internet Telephony is being considered to be provided in the manner contemplated in the Consultation Paper (the example of which is given in Question No. 3 of the consultation paper) then such Internet Telephony is not only outside the purview of ISP license but also outside the purview of other access service licenses. Since it is purely based on APP based service i.e. VOIP service it is only case of content, as defined by TRAI [in its regulations dated 8 February 2016 on prohibiting differential rates of data services based on content] and that same is outside the purview /jurisdiction of TRAI Act.
- b. However, if the scope of Internet Telephony services is as defined in 2008, then to provide such Internet Telephony services, the Internet Service Provider Licensee must take a UL with an authorization for access services and the **additional entry fee, Performance Bank Guarantee (PBG) and Financial Bank Guarantee (FBG) will be as per the said UL(AS).**



**Q2: Point of Interconnection for Circuit switched Network for various types of calls is well defined. Should same be continued for Internet Telephony calls or is there a need to change Point of Interconnection for Internet Telephony calls?**

- a. For the so called internet telephony calls [App based calls] that have been mooted in the present consultation, no interconnection can be provided at all as such calls, in our view, are in violation of various license conditions and also there is no jurisdiction under the TRAI Act to determine interconnection of APP based content services like VOIP. It is emphasized that our licenses only provide for Interconnection between networks.
- b. Our detailed submissions in the Preamble may kindly be read as a part of our response to this issue.

**Q3: Whether accessing of telecom services of the TSP by the subscriber through public Internet (internet access of any other TSP) can be construed as extension of fixed line or mobile services of the TSP? Please provide full justification in support of your answer.**

- a. The definition of public internet given in the question, i.e. the **internet access of any other TSP**, is material to the whole discussion on the framework which has been mooted in the present consultation.
- b. As submitted in the Preamble, which may kindly be read as a part of this response, such definition of public internet, is completely incorrect where an internet connection at home is being treated as public internet. Public Internet is Internet Cloud accessed by the subscriber through the connectivity and gateway of its own ISP/TSP as stated/depicted in the Consultation Paper on same subject in 2008 and not through any other TSP/ISP.
- c. Apart from reasons given in the Preamble, there are serious concerns on arbitrage and illegal routing if any such calls are allowed. In this respect we refer to objections made by us and industry against BSNL FMT services.
- d. Further, under license, even a legitimate Internet Telephony call is a different type of call and cannot be compared with real time voice call. Hence, under no circumstances can it be construed as extension of fixed line or mobile services of TSP. Such legitimate Internet Telephony calls require a separate identifiable number series for translation which can be given to TSP providing Internet Access (last mile) and not to an APP provider. Using of SIM/MSISDN or Fixed Line number series interchangeably with Internet Telephony as defined in license is not allowed and will only lead to arbitrage and illegal routing.



e. It may not be out of place to point out that in 2008, a separate number series was recommended for being allocated for Internet Telephony calls as they are different from fixed/mobile calls.

**Q4: Whether present ceiling of transit charge needs to be reviewed or it can be continued at the same level? In case it is to be reviewed, please provide cost details and method to calculate transit charge.**

**Q5: What should be the termination charge when call is terminating into Internet telephony network?**

**Q6: What should be the termination charge for the calls originated from Internet Telephony Network and terminated into the wireline and wireless Network?**

**Q7: How to ensure that users of International Internet Telephony calls pay applicable International termination charges?**

**Q8: Should an Internet telephony subscriber be able to initiate or receive calls from outside the SDCA, or service area, or the country through the public Internet thus providing limited or full mobility to such subscriber?**

**Q9: Should the last mile for an Internet telephony subscriber be the public Internet irrespective of where the subscriber is currently located as long as the PSTN leg abides by all the interconnection rules and regulations concerning NLDO and ILDO?**

**Q10: What should be the framework for allocation of numbering resource for Internet Telephony services?**

**Q11: Whether Number portability should be allowed for Internet Telephony numbers ? If yes, what should be the framework?**

**Q12: Is it possible to provide location information to the police station when the subscriber is making Internet Telephony call to Emergency number? If yes, how?**

**Q13: In case it is not possible to provide Emergency services through Internet Telephony, whether informing limitation of Internet Telephony calls in advance to the consumers will be sufficient?**

**Q14: Is there a need to prescribe QoS parameters for Internet telephony at present? If yes, what parameter has to be prescribed? Please give your suggestions with justifications.**





**Q15: Any other issue related to the matter of Consultation.**

- a. As submitted in the Preamble, the concept of Internet Telephony being mooted in the present consultation has no nexus with the service that is permissible under license.
- b. In view of the above, we believe these questions are wrongly framed as they are based on incorrect premise of allowing APP based calls by a TSP having no access network, which is not permissible for the reasons elaborated in the Preamble.
- c. It is submitted that the concept of Internet Telephony, now being mooted, is not only illegal but will lead to lot of complexities which have not even been dealt with in the consultation. For example, what is the view on chargeability of such call for the subscriber? Will the subscriber of the TSP pay call charges to its TSP and data charges to the 'other TSP' whose WIFI network it will use to originate the call? Will this other TSP know that its network is being used as an extension by another TSP to pass off an App originated call as its own fixed /mobile originated call? Can the TSP substitute its MSISDN number on a call that has originated from the Internet. Would this not amount to tampering of CLI which is not permitted under license?
- d. We submit that if any such so called internet telephony call is made and transmitted to our network then we shall be within our rights to not only charge 53 paise (highest rate of termination rate for such calls) but will also be within our rights to suspend or terminate corresponding interconnect agreement as such calls are in violation of the interconnect agreement and license conditions.
- e. Even insofar as the permitted Internet Telephony services are concerned, we believe that the issues raised in the consultation regarding transit charges, termination charges, international termination charges, geographical restriction to make receive calls, numbering resources, number portability, emergency number calling, QOS parameters, etc are highly premature as first the framework of the service has to first be known, and the issues have to be raised and responded to in the context of that framework.

**New Delhi**  
**5 September 2016**



## Annexure A

### Relevant License Conditions

1. Internet Telephony means transfer of message(s) including voice signal(s) through public internet. **As explained earlier Public Internet cannot mean WIFI of any other TSP at home of subscriber. Public Internet is the internet cloud to which ISP network is connected through its Gateway.**
2. Internet Telephony is explained in the ISP License / UL License (Internet Service Authorization) as follows:

*"Internet Telephony is a different service in its scope, nature and kind from real time voice service as offered by other licensees like Basic Service Licensees, Cellular Mobile Telephone Service (CMTS) Licensees, Unified Access Service (UAS) Licensees, Unified Licensee (Access Service), Unified Licensee with authorization for access services."*

3. Since it is different from real time voice service as offered otherwise by Licensees there are allied conditions given in the Licenses for Internet Telephony, like, as follows:

#### Under CMTS/UASL/UL(AS) and Unified Licensee with authorization for access services -

- a. IP Address assigned to a subscriber for Internet Telephony shall conform to IP addressing Scheme of Internet Assigned Numbers Authority (IANA) only. Translation of E.164 number / private number to IP address and vice versa by the licensee for this purpose shall be as per directions/instructions issued by the Licensor. (It may be noted that no such directions/instructions have so far been issued by the Licensor despite recommendations by TRAI in 2008).
- b. While providing Internet Telephony service, the Licensee may interconnect Internet Telephony network with PSTN/PLMN/GMPCS network. (Thus, **even for permitted Internet Telephony, under license, the interconnection is optional and not mandatory; Thus interconnection cannot be mandated for even such permitted internet telephony and certainly not for the App based telephony being mooted by it; further Interconnection is between networks and not between/with licensee with no network** )

#### Under ISP License / Unified Licensee with authorization for internet service

- a. The Licensee may provide Internet Telephony through Public Internet by the use of Personal Computers (PC) or IP based Customer Premises Equipment (CPE) connecting only the following:
  - i. PC to PC; within or outside India



- ii. PC / a device / Adapter conforming to TEC or International Standard in India to PSTN/PLMN abroad.
  - iii. Any device / Adapter conforming to TEC or International Standard connected to ISP node with static IP address to similar device / Adapter; within or outside India.
- b. The Internet Telephony, only in above form, can be provided by the Licensee. Voice communication to and from a telephone connected to PSTN/PLMN/GMPCS and use of E.164 numbering is prohibited.
- c. Addressing scheme for Internet Telephony shall conform to IP addressing Scheme of Internet Assigned Numbers Authority (IANA) only and the same shall not use National Numbering Scheme / plan applicable to subscribers of Basic / Cellular Telephone service. Translation of E.164 number / private number to IP address allotted to any device and vice versa, by the licensee to show compliance with IANA numbering scheme is not permitted.
- d. The Licensee shall maintain CDR/IPDR for Internet including Internet Telephony Service for a minimum period of one year. Parameters of IPDR shall be maintained as per the directions/instructions issued by the Licensor from time to time.
- e. The Licensee shall maintain log-in/log-out details of all subscribers for services provided such as internet access, e-mail, Internet Telephony, IPTV etc. These logs shall be maintained for a minimum period of one year.
- 4. It is clear from above conditions that even if unrestricted Internet Telephony is to be allowed to Internet Service Providers, then it can only be provided by that Licensee to its own subscriber on IP address given by that Licensee only, translation of IP address can only be done by that Licensee only based on instructions of Licensor, CDR/IPDR to be maintained by that Licensee only. But the consultation has ignored all these aspects.**
- 5. Scope of Access Service under UASL/CMTS/UL(AS):**

- a. Scope of this authorization covers the following:

*"Access Service under this authorization covers collection, carriage, transmission and delivery of voice and/or non-voice MESSAGES over Licensee's network in the designated Service Area. The Licensee can also provide Internet Telephony, Internet Services including IPTV, Broadband Services and triple play i.e voice, video and data. While providing Internet Telephony service, the Licensee **may** interconnect Internet Telephony network with PSTN/PLMN/GMPCS network. The Licensee may provide*



access service, which could be on wireline and / or wireless media with full mobility, limited mobility and fixed wireless access.”

6. UL(Access Services Authorization), UL(ISP), UAS/CMTS License and ISP License are all ACCESS Licenses. Only in capacity of ACCESS Licensees, they have been permitted to provide Internet Telephony on their Access Networks. This has been very well explained by TRAI in its 2008 Consultation. **An Internet Telephony session, like a data session, has to originate from device with the Subscriber of that UASL/UL/ISP who is providing Internet Telephony and therefrom the routing has to be through the access network of such UASL/UL/ISP up to a point after which routing will be on Public Network.** Some of the examples given by TRAI in 2008 are as follows:

*“PC-to-PC Internet telephony: In this scenario, the calling and called parties both have computers that enable them to connect to the Public Internet (refer Fig. 2.3). The two correspondents are able to establish voice communication only by prior fixation, as both users have to be connected to the Internet at the same time and use VoIP-compatible software. Presently, large numbers of Instant Messaging applications are available on Internet to make PC-to-PC Internet telephony possible. The ISP's role in such scenario is limited to provide access to the Internet. The ISP network is transparent to such voice application used by the subscribers. Today PC equivalent devices like personal digital assistants (PDA) or advanced mobile handsets are available, which can also run such Internet telephony software. This type of Internet Telephony is permitted under present ISP license.*

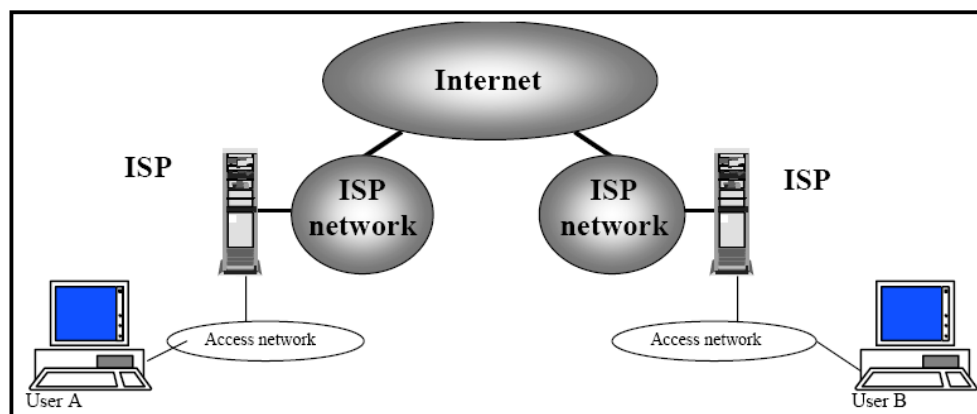
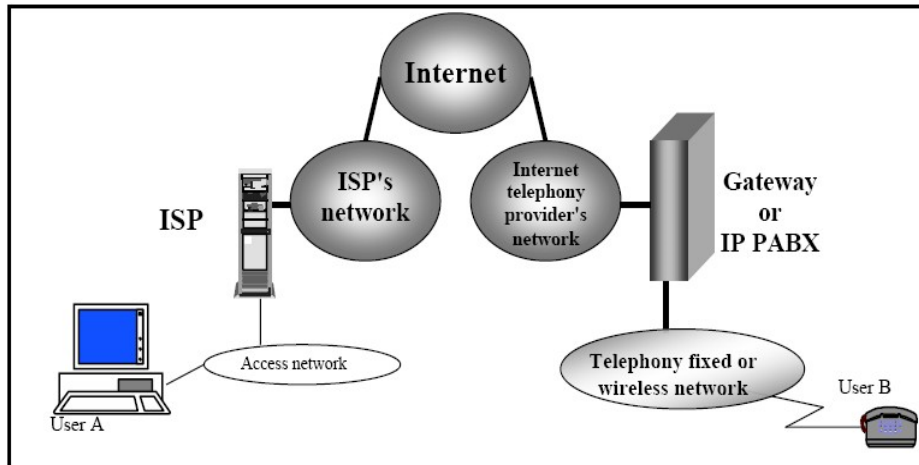


Fig. 2.3 PC-to-PC Internet telephony

*PC-to-Phone Internet telephony: In this type of Internet telephony, user at one end connects his PC to Internet provided by an ISP while the other user is a PSTN/PLMN subscriber (refer Fig. 2.4). User A, when connected to Internet has to use the services of some Internet Telephony Service Provider (ITSP) operating Internet telephony gateway to connect to called subscriber (User B). This gateway will handle all signaling relating to the telephone call at the called party end. ITSP are presently*



*permitted to provide one-way PC-to-Phone service for International long distance outgoing calls only. An end user is allowed to make PC-to-Phone Internet Telephony calls only on PSTN/PLMN abroad.*



*Fig. 2.4 PC-to-Phone Internet telephony*

7. **However, the current consultation has completely ignored the pre-requisite of Access Network (last mile) of ISP/UL(Access/ISP)/UASL/CMTS for accessing the internet, which includes Internet Telephony. The current consultation only deals with IT infrastructure required for Internet Telephony like SIP System Architecture, User Agent, Registrar, etc.**
8. Since the Access Network to Subscriber of ISP/UASL/CMTS/UL(Access/ISP) has to be given by that ISP/UASL/CMTS/UL(Access/ISP), this forms an important consideration for any discussion on Internet Telephony. In other words, even a licensee, which is not giving such access network to its subscriber (last mile), cannot provide internet services/internet telephony.
9. To take an example, if an ISP has provided last mile to its customer then only that ISP can provide Internet Telephony. Further, if another access service licensee, who does not have last mile of its own in the same location, cannot provide any service. If that another access service licensee attempts to give access to its own subscriber from that location through internet connection of different ISP to its customer then the same is not an Internet Telephony Service as prescribed under various licenses. In fact in such case, where access network is absent, any such attempt to provide connectivity through other service provider's internet connection is equal to any OTT Communication Service and not Internet Telephony Service as envisaged under the current licensing regime.
10. Further, for Internet Telephony Service, IP Address is given by the internet service provider to its customer, which address should conform to IP addressing Scheme of Internet Assigned Numbers Authority (IANA) only. An OTT Communication Service (even given by



licensee where that licensee does not have access network) cannot further use any number or address to show such OTT Communication Service as Internet Telephony. This will be in breach not only of the numbering plan and routing but also of the license conditions.

- 11.** Thus, if interconnection issues and other Internet Telephony issues are to be considered, it can only deal with cases where ISP/UASL/CMTS/UL(Access/ISP) has its own access network to provide internet/internet telephony service to its subscriber and such licensee has given IP address conforming to IANA to its subscriber.