

Consultation Paper No.2001/2

Telecom Regulatory Authority of India

COMMENTS FROM STAKE

HOLDERS

ON

TRAI PAPER ON

**“INTERNATIONAL LONG DISTANCE
SERVICES”**

STAKE HOLDER'S COMMENTS ON ILD PAPER

I. TERMS & CONDITIONS OF LICENSE

- 1. TYPE OF SERVICES AND TECHNOLOGIES**
- 2. INTERCONNECTION AND NETWORK DEFINITION**
- 3. TIME PERIOD OF LICENSE.**

STAKE HOLDER'S COMMENTS ON ILD PAPER

i) What are the type of tele and bearer Services that should be permitted as part of ILD License provided under the liberalised environment? Considering the fact that tele services are basically derived from bearer services by the Customer's Premises Equipment (CPE), which is provided by BSOs, is there a need for the ILD licensee to specify tele services? Will it not be adequate, if it specifies certain bearer services and other wise adopts a neutral approach in so far as specific tele services are concerned?

P.K. Roychoudhury	All bearer services and all non-voice teleservices should be permitted. Voice service should be left to APs and NLDOs.
Estel Communications	The License should not specify that bearer services which are derived primarily from Customer's Premises Equipment provided by the Local Access Operator.
Consumer Care Society	Considering that all teleservices are basically digital, it is not necessary to specify individually all the services in the license. It is adequate if the license specifies bearer services and leaves the freedom to the licensee the choice of whether he wants to position himself as a bearer service provider or bearer and teleservices provider or only teleservices provider taking on lease the bearers from others.
T.S.Subramanian Member, Telecom Board (Retd.)	In line with the TRAI recommendations on NLD services (Para 6) the ILD services should also be only a bearer service and the scope of ILD services should be defined as switched bearer service providing for carriage of various tele services between India and other countries. Since only bearer services are provided there is no need to specify the tele services it will carry.
Nitin N. Pai, Singapore	TRAI must allow this decision to be taken by the licensees, i.e. dictated by market forces and commercial decisions.
Dr. T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	The distinction between tele and bearer services is unnecessary. There is absolutely no need to specify what tele services etc. the licensee may provide during the currency of his license.
IDFC	We are in favour of the last option mentioned above, whereby the ILD license may specify bearer services for operators, and adopt a neutral approach as far as tele-services are concerned.
Debashish Dutta Gupta	ILDO should be permitted to provide all type of bearer services for voice, data and video signals. Extension of services to customer premises should be through Access Providers only i.e. ILDO should not provide Customer Premises Equipment (CPE)

STAKE HOLDER'S COMMENTS ON ILD PAPER

PTC India Foundation	ILD license should not prohibit any category of bearer services derived for CPE and tele services. Restriction in this regard, if relevant are in the context of licenses issued to BSOs, should be gradually lifted in line with international trends and practices.
-------------------------	---

STAKE HOLDER'S COMMENTS ON ILD PAPER

<p>ASC Enterprises</p>	<p>Technology is changing very fast with improved functionalities and at declining costs. It difficult to forecast the technologies, which would be in vogue, says 5-6 years from now. Further all forms of communications voice, data, and video are converging. To remain competitive in a global environment, the operator should have full flexibility to adapt to new technologies and to provide full range of ILD services, which best meet the customer needs.</p> <p>In view of above it is desirable that the licence covers all forms of international telecommunication services However, ILDO should not, under ILD Licence, be allowed to provide services domestically. Any operation of NLD, Basic, and Cellular etc by the Promoter of ILD or ILDO itself, if granted under separate licenses, should be at Arms length from the ILD; ILD must be on a non discriminatory basis to all NLDs and with full transparency. It is essential to provide level playing field to all ILD operators.</p>
<p><u>Sprint Communications Company</u></p>	<p>Sprint believes that it is unnecessary and unwise for an ILD license to specify particular services. The clear technological trend in the provision of long distance telecommunications service is towards a single, multipurpose network that can provide many different kinds of services- voice, data, video, and perhaps others. Such a network has many advantages, primarily in the areas of simplicity and lower cost, over the common current practice of establishing different networks for different types of services (e.g. analog or digitized voice, frame relay, Asynchronous Transfer Mode, Internet Protocol (IP)).</p> <p>Current technical trends favor the use of IP as the basic underlying architecture of new long distance networks constructed from the ground up. No one can foresee whether IP will become the de facto network standard around the world. However, IP networks are already capable of providing many different kinds of services as these services are reduced to an undifferentiated stream of packets. It also seems clear that techniques such as Multi-Protocol Label Switching (MPLS), Differentiated Service, or IP Version 6 will eventually solve the traditional quality of service problems associated with transmission of real time communications like voice over IP. Moreover, and as discussed further below, it is not difficult to provide high quality voice over IP (VOIP) by careful engineering of the IP network even today.</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>Given the rapidly advancing technology in this area, it would be unwise for regulators to try to dictate the future by authorizing individual services. Regulatory attempts to permit voice ILD but not over IP networks or the provision of IP services only if they are not used for the transmission of voice, for example, might easily have the perverse effect of denying the latest and most efficient technology to the Indian public. At a minimum, issuing licenses on a service by service basis will increase regulatory expenses, cause delay, and contravene the benefits that competition can bring.</p> <p>For these reasons, ILD licenses should be issued in the broadest possible terms to include voice, data, video, switched services, private line, or any other offering utilizing whatever technology – satellite, submarine cable, coaxial cable, fiber optics, radio – and protocols and network architecture - IP, Frame Relay, Asynchronous Transfer Mode, Ethernet, etc.</p>
VSNL	All types of telecom services, bearer or tele, defined under International Communication category should be permitted as a part of ILD license.
AT&T India	<p>TRAI will best foster investment, innovation, and improved service by establishing a flexible license regime for all ILD activity. The uniform ILD license should not limit the number of competitors. It should allow all international voice, data, and value-added services to be provided on a facilities-based network, on a leased-circuit-based network, or on a switchless/pure resale basis. The only exclusions from the broad ILD license should be for specific policy reasons (e.g., additional licensing requirements for use of scarce resources, or national security). In an effectively competitive environment, market forces both require and ensure rapid carrier development of networks or services at a price and quality that customers demand.</p> <p>A flexible license regime promotes market efficiency by allowing an already-licensed carrier to respond immediately to an emerging market demand without requiring additional regulatory approval. It allows new entrants to employ a hybrid strategy of being both a reseller and a facilities-based operator, fluidly changing their network footprint in accordance with technical and economic opportunity. Finally, a flexible license regime allows TRAI to maintain a streamlined staff that need only give close scrutiny to requests that raise previously-identified policy concerns.</p>
COAI	COAI believes that for optimal utilization of resources, the ILD license must cover all types of ILD services.

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>The days for separate networks for voice and data are over. With the evolution of technologies, a single network will be able to cater to and carry voice, data and video and leased lines of different bandwidths.</p> <p>Consequently, we believe that all types of tele and bearer Services should be permitted as part of the ILD licence. There should be no restrictions imposed in the context of emerging convergence of services.</p>
BPL Mobile	All types of tele and bearer Services should be permitted as part of the ILD licence. There should be no restrictions imposed in the context of emerging convergence of services.
TATA	All types of tele, bearer and supplementary services should be allowed.
Surya Foundation	For optimum utilisation of resources there should be a single licence to cover all types of ILD services. The days of separate networks for voice and data are over. With the evolution of technologies, single network will be able to cater for voice, data, video and leased lines of different bandwidths etc. Therefore, a single licence for all types of tele and bearer services may be given.
Teleglobe	The ILD License should allow ILDOs to provide all manner of services regardless of the facility utilized (including, but not limited to: voice, data, ATM, frame relay, VPN, international private line, broadcast transport). Although "tele" services are derived by CPE that is provided by BSOs, the License should, at a minimum, be neutral toward these services. The License should in no way preclude and ILDO from providing tele services should future technological developments or network definitions change or blur the distinction between the services as presently defined.
ABTO	ABTO feels that CPE is part of the BSO operations and ILD licensee should not be permitted to provide teleservices. ILD license should permit all types of circuit switched/packet switched voice and data services between two countries including bandwidth.

STAKE HOLDER'S COMMENTS ON ILD PAPER

Global Crossing	<p>Global Crossing believes that the best way to encourage quick and real competition is to not put limits on the number of ILD licenses, or the types of services ILD operators can provide. Global Crossing recommends that the Indian government look to issuing unlimited licenses with the broadest type of authority allowed, and then let the ILD operators decide what types of services they want to provide based on their business plan. The ILD operators should not be restricted by having arbitrary build-out requirements imposed on them, but be allowed the flexibility to build their networks as necessary to meet the needs of their customers. This approach both lessens the administrative burden on the government since carriers do not need to keep filing applications for additional authority as they expand their network and product offerings, and it gives new ILD operators the flexibility and speed necessary to capitalize on new market opportunities as they arise.</p> <p>For instance, in the United States the Federal Communications Commission ("FCC") used to authorize international long distance carriers on a route-by-route basis, with specific services and facilities identified in their license. The FCC learned through experience, however, that this piecemeal regulation did not serve any useful purpose. In fact, as competition increased, the FCC did not have the resources to quickly process all of the additional applications for new services and facilities that began to flood its offices. In addition, new carriers complained that they did not have the flexibility to quickly expand service offerings to meet their customers' needs. When a competitive carrier had a new customer that wanted a service that the carrier did not have specific authority to provide, the carrier often lost the business to the incumbent who quickly moved in for the business while the competitive carrier applied for additional authority to provide that service. In addition, when competitive carriers applied to the FCC for specific authority for certain routes and facilities, this gave the incumbent carriers immediate access to the business plans of their competitors. The FCC overcame these problems by adopting a broad licensing scheme that gave carriers the broadest possible authority to both resell any service and acquire facilities to any country, unless specifically prohibited. The FCC then monitored the carriers' activities through general reporting conditions. Likewise, as described below, other telecommunications regulators have overcome these similar problems by granting general authorizations or class licenses.</p>
-----------------	--

STAKE HOLDER'S COMMENTS ON ILD PAPER

Global Crossing urges India to likewise simplify its licensing regime as much as possible. Global Crossing believes that predictable, administratively efficient, and transparent licensing procedures are essential to the proper functioning of a vigorous, competitive internal communications market. Conversely, unnecessarily burdensome or complex licensing procedures constitute a barrier to entry. Towards this end, Global Crossing recommends the use of general authorizations or class licenses wherever possible. The only time India might want to require individual licenses is when scarce resources, such as radio spectrum or numbers are involved.

For instance, one region where telecommunications competition has flourished since being introduced a few years ago is the European Union ("EU"). Many EU Member States have successfully used a registration/class licensing and general authorization system. Several EU Member States, including Denmark, the Netherlands, and Sweden, have successfully used general authorizations for virtually all services. These EU Member States require a simple notification (or, in the case of Denmark, no filing at all) from providers who, merely by registering, subject themselves to a variety of rights and obligations such as interconnection, numbering, consumer protection, and access to rights of way. These countries have not had significant problems in adequately regulating telecommunications providers using this system.

Global Crossing also encourages India to adopt a licensing scheme that does not impose artificial entry barriers such as high licensing fees or unnecessary applicant qualification standards. India should limit its licensing fees to an amount sufficient to cover the administrative costs of reviewing and granting the application. Arbitrary and high entry fees only serve to limit competition. For example, in Germany the outrageously high license fees prevented many carriers from entering the market. Once the courts froze collection of the fees, carriers began to enter the market. Further, there is no reason to impose financial requirements on carriers before granting a license. Many countries such as the United States do not have these requirements. They rely upon the marketplace to determine whether or not a carrier will succeed.

By implementing a licensing regime that is easy, inexpensive and relies primarily on general authorizations and class licensing, India will become a leader in Asia, while at the same time expediting the development of telecommunications competition. Such a regulatory regime also will reduce the

STAKE HOLDER'S COMMENTS ON ILD PAPER

	administrative burden on the Indian government to review license applications and supervise compliance with licenses, allowing it to focus on more pressing issues.
--	---

STAKE HOLDER'S COMMENTS ON ILD PAPER

Bharti	European Union and many other countries allow various types of Tele and Bearer services. Therefore, there should not be any impediment on type of services and the ILDO must cover all types of ILD services. Moreover, with the new and the latest technologies, which are improving day by day, an ILDO with a common Network can carry and provide all types of voice, data and other services to its consumers.
Morgan Stanley	All types of tele, bearer and supplementary services should be allowed.
Reliance	Since the ILD operator is not required to have any interaction with the subscriber on the lines of NLD, it would be better not to specify the tele or bearer services, and give a one licence under the category of ILDO for all types of Voice/Data and other services. This will lead to optimal utilisation of the costly International Bandwidth. In the competitive environment there is need for adopting technology neutral approach in specific tele services.
BSNL	ILD Licensee should be permitted to provide only bearer services for transmission of voice, data and video signals including leased line bandwidth. Teleservices that provides complete capability for communication between users including provision of the terminal equipment at customer's premises which falls within the purview of the Access Providers. ILDOs should, therefore, not be permitted to have any direct access to the customer's premises.
ISPAI	ILD is essentially a carriage service and as such, the license should not specify the Tele Services, which are derived primarily from Customer's Premises Equipment provided by the Local Access Operator. It will be adequate to adopt a technology neutral approach, wherein, the proposed license may mention a few examples of Bearer Services.
Nirwan Management Group	For optimum utilisation of resources there should be a single licence to cover all types of ILD Services. The days of separate networks for voice and data are over. With the evolution of technologies single network will be able to cater for voice, data video. Leased lines of different bandwidths etc. Therefore, a single licence for all types of tele and bearer services may be considered.
Satyam	It is best to adopt a neutral approach to specific services, and avoid narrow definitions or technology specific definitions, as these may unnecessarily

STAKE HOLDER'S COMMENTS ON ILD PAPER

	restrict adoption of new and evolving technologies by service providers. It will be adequate that the proposed license mention examples of bearer services.
--	---

STAKE HOLDER'S COMMENTS ON ILD PAPER

<p>Open House Kolkata</p>	<ul style="list-style-type: none"> • One of the participants indicated that the services normally would be available through the circuit switches though other options of packet switching could also be available. • No restriction on the type of services should be permitted • One license should cover for all services • Some of the participants indicated that Customer's Premises Equipment (CPE) is identified with Basic Service Operators and as such TRAI should focus on Bearer Services only. • Some parity between VSNL and new ILDO was stressed by some of the participants.
<p>Open House Chennai</p>	<ul style="list-style-type: none"> • Some participant suggested that we should not specify any particular service, all services presently provided by VSNL should be permitted. • Some other suggested only bearer transport to be permitted. • Another participant suggested that complete package including additional end equipment could be provided by the ILDO. It should not be restricted to only transport or carriage of traffic. • Integration with BSO option also should be available to the ILDO
<p>Open House Mumbai</p>	<ul style="list-style-type: none"> • Some of the participants indicated that Customer's Premises Equipment (CPE) is part of Basic Service Operators and as such Tele services should be handled only by BSOs and not by ILDOs. • Some of the participants indicated that if private operators assure to provide best services at affordable price and meet the Quality of service parameters, they should not be restricted and thus convergence should be allowed.
<p>Open House Delhi</p>	<ul style="list-style-type: none"> • Shri D B Sehgal from BPL indicated that there should be no restriction on the type of services to be provided by ILDOs. He also stated that the market size would get restricted if restrictions are imposed. Settlement rates are already going down. There is also diversion of international traffic of the order of 20 % to 30 % due to Internet Telephony. In the next 3 to 5 years, it is expected that the settlement rates may go down by 40 %.

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<ul style="list-style-type: none">• Shri N K Dua stated that the Customer Premises Equipment is in the domain of the Access Provider. ILDO should be permitted to provide all types of services and the customer should decide the type of service.• Shri Amitabh Singhal stated that all type of services should be considered. He also suggested that what ever service is permitted for VSNL should be permitted for ILDO. The principles used for NLDO should also be used for ILD Service.• Shri Rajneesh Gupta of VSNL suggested that all kind of services be allowed by ILDOs.• Representative from Tata Teleservices mentioned that the Teleservices are in the domain of BSOs and therefore only Bearer Services should be permitted for ILDOs.• Shri Satya Pal from COAI mentioned that ILDO should provide a Network of Voice, Data, Video & Leased Services and it should be allowed to provide all types of services. He also suggested that all investments need to be optimised.• Shri J P Garg from Nokia suggested that considering the market demand, innovations in technology etc., ILDs should be permitted all types of services.• Shri Khurana from BSNL suggested that the tele services are in the domain of BSOs and the CPE being versatile, all types of Bearer services should be permitted.
--	---

STAKE HOLDER'S COMMENTS ON ILD PAPER

ii) VSNL has international gateway switches at a few metro cities, such as Mumbai, Delhi, Chennai, Calcutta etc. Will it be the most appropriate architecture when there are multiple ILDOs? Should we mandate a similar architecture for private ILDO?

P.K. Roychoudhury	No limit should be placed on network structure other than interconnectivity requirements.
Estel Communications	In an environment of multiple ILDOs the VSNL type of network architecture will not be relevant.
Consumer Care Society	There need be no mandatory restrictions with regard to the architecture which is best left to the choice of the licensee.
T.S.Subramanian Member, Telecom Board (Retd.)	The location of the gateway switches will be based on traffic pattern and network economies and the licensees should free to locate them as they consider appropriate. The ISPs are permitted to locate their uplink earth stations based on network economies (restricted only by frequency availability and interference).
Nitin N. Pai, Singapore	TRAI must allow this decision to be taken by the licensees, i.e. dictated by market forces and commercial decisions. TRAI must not involve itself in the commercial and technical decisions of the licensees.
Dr. T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	The architecture for gate ways i.e. whether they will be like VSNL or different must be left to the licensee. The TRAI or the licensor should not be an architect or engineer. They have no stake in the success of the companies because they do no invest; they only consume his financial resources. Therefore leave architecture to the companies themselves.
IDFC	No, such architecture should not be pre-specified for ILDOs. Rather they should have the choice to determine where switches would be most appropriate.
Debashish Dutta Gupta	ILDO should have freedom to establish any number of POPs (Gateway Switches) in the country. However, ILDO shall make its own arrangement to interconnect with the NLDOs Gateway Switch for handing over and taking over the international traffic.
PTC India Foundation.	Foundation Private ILDOs should be free to develop their own network architecture. Gateway switches at place other than metros be encouraged
ASC Enterprises	VSNL infrastructure and network topology was designed in a situation where the domestic telecom infrastructure was inadequate and of poor quality. Because of these limitations attempt was to reduce the domestic link to the minimum and that is why VSNL has large number of International gateways. This may not be the case tomorrow when, hopefully, India has world-class domestic long distance network. With the availability of high capacity transmission media like satellites, Submarine fibre cables and strong domestic long distance infrastructure will need lesser number of

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>International Gateways.</p> <p>In view of above it is suggested that Regulator should not prescribe any architecture. Operator should have full freedom to design the architecture, number of gateways, choice of deploying suitable mix of Satellite and fibre cables in his network, which best serves the market, it is addressing.</p>
--	---

STAKE HOLDER'S COMMENTS ON ILD PAPER

<p><u>Sprint</u> Communications Company</p>	<p>Initial deployment of international gateway switches by a new ILD competitor in India would likely be the result of an intensive network study based upon traffic projections and concentration as well as the capital that must be invested. A large switch can easily cost US\$ 1 million and customers will have little incentive to use a new and unknown ILD provider unless its prices and quality of service are as good or better than VSNL's. Thus, competitive forces will assure that the number and location of new switches will be carefully planned. There should be no need for regulatory requirements in this regard.</p> <p>The number and location of international gateway switches is also a function of fundamental network design, including tradeoffs between switching and transmission(generally speaking, switching and transmission can be substituted for each other to some degree: more transmission implies less switching, and vice versa.) Regulators should not try to constrain a new entrant's freedom to design and implement the network that it believes will be successful.</p> <p>Moreover, a new ILD entrant will likely begin operation on a limited scale at first, gradually building up its business over time. It is unlikely to require multiple international gateway switches immediately. Requiring the immediate installation of multiple international switches that may go unused for a long period serves no purpose but to increase the new ILD provider's costs (that it must ultimately try to recover from its customers) with no offsetting public benefits.</p> <p>In short, the TRAI should not assume that the network architecture that is appropriate for the incumbent VSNL is also appropriate for a new ILD entrant. The opposite is more likely to be true.</p>
<p>VSNL</p>	<p>Yes, the architecture of VSNL suits the Indian conditions and this type of architecture has evolved over the years. QoS will improve if switches are more. Therefore, new entrants must start with not less than four numbers of gateway switches at four different places. These switches should be capable of handling ITU signaling system no. CC7 with provision to interconnect with Indian signaling system. The new entrant must provide IDD and operator assisted calls.</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

AT&T India	<p>TRAI should not mandate any network architecture design requirements for new entrants. Aside from requiring all networks to comply with clearly prescribed industry standards for homologation, interconnection, or engineering design, ILDOs should have full flexibility to determine their optimal network architecture. A competitive market will both meet and create demand for new kinds of services, new types of customers, new technologies – and the license regime should fluidly allow network solutions that meet the opportunities identified by each ILDO.</p> <p>Under an unlimited competition scenario, each new entrant, and not the regulator, will determine its network strategy. If TRAI micro-manages network architecture design, it will disserve its larger policy goals of encouraging cutting-edge telecommunications development, improving operational efficiency, improving service quality, increasing choice, and lowering prices.</p>
COAI	<p>It should not be mandatory for the ILD operator to mirror the VSNL architecture. The ILD operator should have the flexibility to choose his network architecture depending upon quantum and type of traffic, technological considerations, other logistics, etc. However, the network architecture chosen by the ILD operator must be in compliance with regulatory requirements, QOS parameters, etc. laid down by the Regulatory Authority.</p>
BPL Mobile	<p>There should be no restriction with regard to any specific architecture. ILDOs should be given flexibility to decide their network architecture so as to evolve the most suitable techno-economic network.</p>
TATA	<p>The licensor should be indifferent to the architecture adopted by the new ILDOs, so long as the ILDO establishes “adequate” interconnect arrangements with NLDOs and/or Access Providers, as the case may be and the licensor is assured that there exists a route from originating customer to ILD gateway for an outgoing call & from ILD gateway to terminating customer for an incoming call. Market dynamics should be allowed to dictate the choice of architecture.</p>
Surya Foundation	<p>The architecture for carrying the ILD traffic should be left to the ILDO who may opt for single or multiple Gateways depending on the quantum and type of traffic, technological considerations and logistics etc.</p>
Teleglobe	<p>TRAI should not mandate the network architecture for private ILDOs. Private ILDOs will construct network according to their respective business plans, market and capital considerations. If VSNL's present architecture is the “most appropriate,” new entrants will replicate it. However, new ILDOs should have the flexibility to adopt a network architecture that responds to their specific business plan and market conditions. Moreover, mandating the present architecture may effectively eliminate new entrants that would otherwise construct a more efficient architecture as infrastructure build out moves forward.</p>
ABTO	<p>ABTO suggests that ILDO should have the freedom to choose one</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	or more International Gateway switches at places he wants. However, the termination of traffic domestically should always be through BSO. ILDO should make his own arrangements for interconnection with the nearest gateway of BSO/ILDO.
--	---

STAKE HOLDER'S COMMENTS ON ILD PAPER

Bharti	Since the architecture of the Network to be deployed by the ILDOs have to meet all the QOS parameters and other requirements stipulated by the Regulator, the ILDO should be allowed to operate on any Network architecture which it thinks appropriate based upon factors which govern its geographical area. Moreover, the VSNL architecture may not be the most appropriate for the private ILDO. Therefore, this should be left to the private ILDO to decide upon its Network architecture.
Morgan Stanley	The licensor should be indifferent to the architecture adopted by the new ILDOs, so long as the ILDO establishes "adequate" interconnect arrangements with NLDOs and/or BSOs, as the case may be and the licensor is assured that there exists a route from originating customer to ILD gateway for an outgoing call & from ILD gateway to terminating customer for an incoming call. Market dynamics should be allowed to dictate the choice of architecture.
Reliance	The network architecture should not be specified. Whether the ILDO has one or more gateways should be left to the ILDO to decide. The requirement is for the operator to provide international voice and data services and it should be left to the operator to follow any network architecture of one or multiple gateways. However, the gateway should be recognised as that gateway where he has his international connectivity. The ILDO should make his own arrangement for interconnection with nearest gateway of NLDO.
BSNL	The license may not mandate similar network architecture for new ILDOs as that of VSNL. But for dispersed development of the infrastructure, optimal utilization of national network resources, to maintain reliability & integrity of network and to take care of security aspects, it may be necessary that each ILDO sets up minimum four gateways i.e. one in each region of the country and connect the gateways through circuits leased from NLDOs for inter-gateway traffic.
ISPAI	The new ILDO should be given freedom to optimally evolve a 'Network Architecture' on the basis of latest technology and prevailing market environments.
Nirwan Management Group	The architecture for carrying the ILD traffic should be left to the ILDO. He may opt for single or multiple Gateways depending on the quantum & type of traffic, technological considerations and other logistics.
Satyam	No specific architecture need be mandated. However, there should be no bar / bottleneck if a new ILDO chooses to use architecture like VSNL.
Open House Kolkata	<p>Answers ii) & iii)</p> <ul style="list-style-type: none"> Most of the participants wanted the interconnectivity of ILD Networks through NLDOs. Direct connectivity between the Access Providers and ILDs was considered by some of the participants as a by pass of the NLD operators. BSNL representative indicated that International Long Distance service provider would be required to pick the traffic directly

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>from the Access Provider. Then he will also be required to make arrangement for picking up of the traffic from 2639 SDCAs in the country. He indicated that it will be an expensive proposal.</p> <ul style="list-style-type: none">• Some of the operators mentioned that licence agreement of the Basic and NLD operators also do not permit direct connectivity between Basic Service Operators and ILDOs. One participant from Cellular Operator company, however, wanted that access providers and ILDOs should have full flexibility to work out the interconnection arrangement between themselves and if necessary NLDO need not be part of the interconnection for ILD calls.• BSNL representative mentioned that any traffic other than intra SDCA traffic, is treated as Long Distance traffic. Carriage of the Intra Circle and Inter Circle traffic are the responsibilities of Basic and National Long Distance Operators respectively. Domestic leg of the International Long Distance traffic also, as such is required to be routed through the NLD Network. One of the participants wanted the decision to be left to the market forces. Another view point was that for traffic carriage consideration, monitoring of traffic also may be required and multiple agencies handling the traffic needs to be avoided. An architecture through NLDO as was suggested for simplicity.• A representative of Basic Services Operators indicated that the issue of Domain also needs to be considered. A long as the traffic is being routed within the Intra-Circle, Long Distance Network, it falls within the domain of Basic Service operators and the traffic going beyond the boundary of telecom circle falls within the domain of National Long Distance Operator before its delivery to the ILD Operator.
--	--

STAKE HOLDER'S COMMENTS ON ILD PAPER

<p>Open House Chennai</p>	<p>Answers ii) & iii)</p> <ul style="list-style-type: none"> • Many participants indicated that the present system of interconnectivity i.e. BSO/ NLDO/ ILDO in the order, is all right from the consumer point of view. Therefore Status Quo should be maintained. • One participant suggested that for Carriage traffic has to be demarcated in to three parts viz. BSO, NLDO & ILDO. He also mentioned that in case ILDO is permitted to have direct connectivity with BSO, then the NLDO could approach the Courts since there is no composite licence at present. • A representative of BSNL wanted interconnection only through NLDO. He also mentioned that such interconnection would meet the requirement from technical/economic/legal/customer/domain/sphere of activity points of view. He also preferred a long term licence with no by pass permitted in the zones of carriage of traffic as defined in the NLD and Basic Service Licences. He also mentioned that in case ILDO is permitted interconnection with BSOs, then there will have to be many points of interconnection, considering the number of local exchanges. In comparison, the number of TAXs for interconnection with NLDO would be much less. ILDO can then concentrate on collection and dispersal ILD of traffic through NLDO. • VSNL representative suggested that the ILD Operators should be selected from the NLD Operator only. In such a scenario, the technical & legal issues would be automatically taken care of. He therefore suggested that the NLDO may be given the choice of ILD licence. In such a case, the Interconnection would get simplified and even the same switch could be used for the ILD and NLD Services.
<p>Open House Mumbai</p>	<p>Answers (ii) & (ii)</p> <ul style="list-style-type: none"> • Some of the participants indicated that Customer's Premises Equipment (CPE) is part of Basic Service Operators and as such Tele services should be handled only by BSOs and not by ILDOs. • Some of the participants indicated that if private operators assure to provide best services at affordable price and meet the Quality of service parameters, they should not be restricted and thus convergence should be allowed.
<p>Open House Delhi</p>	<p>Answers (ii) & (ii)</p> <ul style="list-style-type: none"> • Shri S C Khanna from ABTO indicated that the BSOs spend maximum money on infrastructure; therefore they do not want routing of international traffic through NLDOs instead Access Providers should be permitted to directly interconnect with ILDOs.

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<ul style="list-style-type: none">• Shri Satya Pal from COAI recalled that the NTP 1999, Para 3.1.1 indicated direct interconnectivity of CMSP and BSOs with ILDO. He also stated that the customers could also have the choice of selection of ILDOs if direct interconnection is permitted with APs. He also stated that with such an arrangement the cost of international call would also be reduced.• Shri Aditya indicated that no restrictions should be placed on architecture and only Service Level Agreements should be applicable.• Shri D.B. Sehgal stated that no restrictions be imposed on architecture. There should be full freedom based on techno/economic reasons. Direct connectivity was suggested with Access Providers since revenue settlements could be easier with direct connectivity.• Shri Rohit Anand from Reliance suggested that consumer consciousness is necessary.• VSNL representative suggested that connectivity directly with Access Providers reduces the settlement rates. This will become significant in the coming years as the Tariff is likely to come down by 50%.• Shri D.B. Sehgal suggested that choice of access should be with customer. If the connectivity is through the NLDO then two stage carrier selection will not be possible technically.• Shri Khurana, BSNL stated that more infrastructures is required. Operators must set up infrastructure at least in 4 regional centres. Hierarchy should followed the connectivity should be through NLDOs. ILDOs should have more POIs for better coverage.• There was also a suggestion that the NLDOs should be given the ILDO Licence since it would be easier technically for interconnection and could avoid duplication of Infrastructure• Another suggestion was for lower Entry Barriers. If investment level is optimum more players can come in.• Shri Rajneesh Gupta from VSNL suggested that the importance should be given to the Quality of Service to Customer. Techno economic consideration could be given lessor priority. ILDOs should establish at least one switch in each region and should be permitted to pick up traffic directly from APs.
--	---

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<ul style="list-style-type: none">• Shri Maheswari Satyam suggested that no mandatory interconnect.• Shri J.P. Garg from Nokia stated that private ILDO should be given free option as for as establishing switches are concerned. Common Gateway solutions along with shared usage of VSNL switching facilities needs to be encouraged.• Shri Khanna of ABTO stated that BSOs have already developed infrastructure for intra circle traffic, they should be provided direct connectivity with ILDO.• A representative of ISPAI Association stated that ISP Gateway also need to be taken into account.• Shri Harbind stated that is no restrictions and gave the example of entry of only 2 Operators for NLD licence as a disincentive in case restrictions are imposed.• Shri T.R. Dua from Bharti recalled the NTP 1999 where direct connectivity of ILDOs with Access Providers was stated.• Shri B.M. Khanna of ABTO suggested that at least regional presence in each region by the ILDO is required.• Shri Sangivee stated that infrastructure development with facilities for both - preselection & dial around for both NLD / ILD. Level playing field is required for the cost of the call irrespective of the place of origination of the call either from Gujarat, Delhi Mumbai . This becomes very important from legal point of view.• Shri Sehgal suggested that if the rates are uniform it would be difficult to regulate the tariffs, so that advantage of cheaper international call should not be confined to Delhi where possibly the ILDO switch might be situated . It should be independent of location of Gateway.• Shri Sangal suggested that international communication from the entire country could be carried on from a single Gateway Switch. However accessibility is required from all other operators. ILDO could joins hands with NLDOs/ Aps so that same tariff is made applicable to all subscribers.• Shri Saxena referred to economics & viability of ILD calls and said that BSNL loses Rs. 10 on each cell. Viability of the ILDO needs to be ensured.
--	--

STAKE HOLDER'S COMMENTS ON ILD PAPER

iii) Three deployment options of Interconnectivity, viz. a) with NLDOs only, b) directly with Access Providers, and c) the existing VSNL deployment practice, have been discussed in the Consultation Paper? Which of these or any other should be the preferred option and why?

P.K. Roychoudhury	ILDOS may establish switches (voice or packet) at National Centres or Primary (State Level). However for 5 years ILDOs should collect traffic from NLDOs only. After 5 years they may collect traffic from CUGs and Access Providers.
Estel Communications	Interconnectivity to ILDO should be permitted directly with Local Access Providers and should not be restricted through NLDO's. This will lead to the most efficient / optimum interconnect agreement which will ultimately benefit the customer. In case ILDO is allowed to interconnect only with NLDO, it will lead to a duopoly or monopoly and will result in higher costs to the customers. Recognising this possibility NTP 2000 has specifically allowed such direct interconnection.
Consumer Care Society	Taking the large size of the country and the traffic generating potential and up coming growth areas, one or the other interconnecting options or an entirely a new hybrid one may be decided as the most optimum. This is best left to the choice of the licensee and he is the best judge to decide what is best suited to him depending on his current and future business plans. There should be no restriction imposed.
T.S.Subramanian Member, Telecom Board (Retd.)	As per para 3.2.3 of the Consultation Paper the licence agreements for NLDO and BSO envisages interconnection of ILDO only with NLDO. However, an exception can be made in respect of international calls from and to a local area collocated with a gateway exchange if the local / tandem exchanges and the gateway exchanges have sufficient intelligence to permit direct interconnection. This will avoid unnecessary routing through a NLDO-TAX located in the same local area since no real revenue accrues to the NLDO.
Nitin N. Pai Singapore	Both Category 1 and Category 2 players must be mandated to openly interconnect with any other licensed telecommunications operator. Of course the commercial terms that a Category 1 operator offers to another Category 1 operator will be different from what it offers to a Category 2 operator or a NLDO. But it must offer the same terms to all operators within the same category. Open, non-discriminatory and non-exclusive interconnection is a key link to build a resilient national information infrastructure.
Dr. T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	Leave the deployment options to be decided by the ILDO by mutual agreement with the NLDOs or access providers.
IDFC	We would recommend that ILDOs be allowed to interconnect directly with access providers (Option b), rather than only with National Long Distance Operators (NLDOs). This provision would in any case only affect access providers who are not also NLDOs, and would give

STAKE HOLDER'S COMMENTS ON ILD PAPER

	such presumably smaller access providers a wider choice of operators with whom they may interconnect. The resultant competition could reduce the cost of providing services – a benefit which could be passed on to the end consumer.
Debashish Dutta Gupta	Direct connectivity with the NLDOs only should be permitted otherwise it will make the carrier selection and interconnection arrangement more complex and expensive.
PTC India Foundation.	This complex issue involves, licensing and interconnectivity conditions. However a definitive answer at this stage cannot be given on account of various reasons. The interconnectivity and access issues amongst the existing operators are yet to be decided by courts /s TRAI / Govt. The timeframe of actual roll out of network by private NLDOs is also uncertain with COAI/ABTO/SPAI/VSNL/BSNL by evolving consensus to the extent possible.

STAKE HOLDER'S COMMENTS ON ILD PAPER

<p><u>Sprint</u> Communications Company</p>	<p>Sprint believes that a new ILD provider should have maximum flexibility to choose between interconnecting with Access Providers, interconnecting with National Long Distance (NLD) operators, following the existing VSNL deployment practice, or any combination of the above as well as the ability to install its own facilities anywhere as it sees fit. If TRAI's goal is to maximize the benefits of competition to the people of India through lower prices for high quality services, Sprint believes that this goal would be furthered by such choice.</p> <p>If, for example, a new ILD provider had the ability (but not the obligation) to connect directly with Access Providers such as MTNL as well as the ability to connect through a national long distance operator (NLDO), it could compare the cost and quality of direct connections with that of connecting through an NLDO. The ILD provider's ability to choose would have the salutary effect of limiting the ability of any single NLDO or a group of NLDOs acting together to charge excessive rates to the ILD provider.</p> <p>Sprint also understands that as part of the privatization process, VSNL is to receive a NLDO license. If VSNL is able, through its NLDO license, to connect directly with Access Providers while a new ILD provider cannot, this is likely to place the new ILD provider(s) at a serious competitive disadvantage. Sprint does not believe that such competitive asymmetry is justified or warranted.</p>
<p>VSNL</p>	<p>VSNL prefers option (b). The adoption of this option will result into better techno-economical output such as call success rate and better QoS</p>
<p>AT&T India</p>	<p>TRAI should permit new ILD entrants full flexibility to determine their interconnection points, and in turn, should require all dominant operators to provide new entrants with non-discriminatory interconnection at any technically feasible location on the dominant operator's network. In addition to the access requirements on dominant operators, ILDOs should have an unrestricted ability to directly enter commercial interconnection arrangements with Access Providers or NLDOs, and should not be required to have an intermediate commercial relationship with a NLDO in order to collect or terminate international traffic with an Access Provider.</p> <p>The interconnection policy should especially focus on the requirements on dominant operators to provide non-discriminatory access to new entrants, and should not establish the number of interconnection points required of a new entrant. Market forces will establish the efficient points of interconnection, supplemented by regulation when a dominant position would distort those market forces.</p>
<p>COAI</p>	<p>At present, interconnectivity of FSPs and CMSPs with VSNL for the international traffic is allowed only through NLD service providers. However, COAI believes that with the opening up of the ILD segment, this decision must be reviewed.</p> <p>As per the clear mandate of NTP 99, all Access Providers should be</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>allowed to directly connect with VSNL. With the entry of private competition into ILD, this direct connectivity should also extend to all private ILD operators.</p> <p>COAI is of the view that just like the customer has been given a choice to select his NLD operator for a national long distance call, he should also be given a choice to select his ILD operator for his ISD calls. The Authority has acknowledged that at present it is difficult to give the customer a simultaneous choice of both the NLDO and ILDO. If access to the ILD operator is only through a NLDO, then the customer is restricted in his choice of either the NLD operator or the ILD operator. This would be against the principles of free choice and equal ease of access that have been advocated by the TRAI.</p> <p>COAI thus supports Configuration 2 of the TRAI Consultation Paper, wherein the ILD operator connects directly to the Access Provider.</p> <p>For this, the ILD operator must set up a Point of Presence (POP) in each Telecom Circle within a defined time frame of say, three years. The ILD operator may meet this requirement in a phased manner say 25% in the first year, 50% by the end of the second year and 100% within three years. This percentage roll-out obligation must be equally applied for coverage in each of the 4 regions of the country.</p> <p>Until this POP is established, the ILD operator should provide long distance bandwidth from the Gateway Switch to the Access Provider at his own cost.</p>
BPL Mobile	<p>ILDOS should be allowed direct connectivity to all Access Providers as well as NLDOs. It should not be mandatory to provide connectivity to only the NLDOs.</p>
TATA	<p>Interconnectivity options with should include with NLDOs as well as with the Access Providers. This will make sure that wherever ILDO is present in the vicinity of the Access Provider, the direct interconnectivity would ensure reasonable pricing for the services to be paid by the customers. However, with respect to the domestic leg of the call the following needs to be ensured:</p> <p>ILDO must be permitted to hand over the calls only at the places where they have PoP i.e., the ILDO can not hand over transit calls to other operators. However, such handing over could be to either an NLDO or directly to the Access Provider.</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

<p>Surya Foundation</p>	<p>The interconnectivity of ILDO should only be through a NLDO. Each ILDO should have interconnectivity with multiple NLDO, preferably all NLDOs. Selection of ILDO by a customer, through desirable, is technically not feasible at present. In most of the countries like USA such selection is not possible. Carrying the traffic within the country up to ILD Gateway should be the prerogative of the NLDO. It is also in line with the licence agreement of BSOs. Any other option could create legal and monitoring problems.</p>
<p>Teleglobe</p>	<p>Option a) ILDOs should be allowed to interconnect at the NLDO, the BSO or any interconnection level that is economically efficient and viable. If restricted to interconnection at one level, ILDOs would potentially be subject to the incumbent in the remaining level leveraging its market power to exclude access. Importantly, interconnection obligations as they pertain to operators having market power must be adopted and enforced in order to provide interconnection rates that are cost oriented, transparent and non-discriminatory to competitive ILDOs.</p> <p>Option b) ILDOs should be allowed to establish a network consisting of international gateway switches, international circuits and national connectivity to Access Providers through leased lines. In this configuration, competitively priced leased lines are critical to the ILDO. For operators with market power, TRAI must ensure that their tariffs for leased lines follow the basic principles of cost orientation and transparency and that they offer leased lines on a non-discriminatory basis. Typically, leased line tariffs entail: 1) an initial connection charge; and 2) a periodic rental charge (i.e. a flat-rate element). Should other tariff elements be applied, they must be transparent and based on objective criteria. Finally, tariffs for leased lines should apply to the facilities provided between network termination points at which the user has access to the leased lines.</p> <p>Although the ILDO could establish a PoP in operating areas of the Basic Service Operators (BSO) and effectively bypass the NLDO, TRAI should not impose "roll-out obligations along with associated time periods so that advantages of competition to telecom users are not confined to pockets of high revenue generating Telecom Circles only." The international long distance and the national long distance markets are distinctly different and, therefore, require different policy approaches by the TRAI. Whereas, the provision of facilities-based national long distance service would arguably call for a broader infrastructure investment so as to provide access to all geographic areas, facilities-based international long distance service can be accessible to end users through a more limited infrastructure investment. International traffic is more easily aggregated over the telecommunications network hierarchy and does not require a broad a number of points of presence to serve wide geographic areas. Moreover, any establishment of roll-out obligations for international long distance service would prove to be more or less arbitrary and would exclude certain entrants from making targeted infrastructure investments. Infrastructure investment will likely occur primarily in the high revenue generating Telecom Circles even if roll-out obligations are imposed since those rents would be necessary in order to off set</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>rents in lower revenue generating areas.</p> <p>Option c) As with the other options, the existing VSNL deployment practice represents but one configuration that new entrant ILDOs should be allowed, but not required, to adopt according to the dictates of their respective business plan and investment strategy. For reasons stated herein, the TRAI should not impose roll-out obligations along with time periods for an ILDO that chooses to adopt this deployment model. Rather, the new entrant should be allowed to invest and deploy its network over a period of time set forth in his business plan. Consistent with interconnection obligations imposed on service providers having significant market power, to the extent that a new entrant's deployment configuration requires interconnection with VSNL at any level, VSNL should be required to provide interconnection rates that are cost oriented, transparent and non-discriminatory to competitive ILDOs and that are provisioned in a timely manner.</p>
--	--

STAKE HOLDER'S COMMENTS ON ILD PAPER

ABTO	<p>ABTO strongly recommends that Basic Service Providers should be permitted direct connectivity with VSNL/ILDO. This provision is also stipulated in NTP 99 which reads as follows:</p> <p>“The FSP shall be allowed to directly interconnect with VSNL after opening up of national long distance from January 1,2000”.</p>
Bharti	<p>The existing Basic services guidelines as well as the CMT guidelines do not permit any direct connectivity of Access Providers with ILDO. This is done in the background that NLDO as well as ILDO have to have a business case to support their operations. We therefore recommend that ILDO shall be allowed to interconnect with NLDO and not directly with Access Providers. This will entail the following :</p> <ul style="list-style-type: none"> a) In line with the current practices b) Will allow faster roll-out c) Will support NLDO plans <p>Will allow optimum utilisation of existing resources of NLDOs</p>
Morgan Stanley	<p>Interconnectivity options with should include with NLDOs as well as with the Access Providers. This will make sure that wherever ILDO is present in the vicinity of the Access Provider, the direct interconnectivity would ensure reasonable pricing for the services to be paid by the customers.</p>
Reliance	<p>The configuration-1 is the most ideal configuration. This will ensure the choice to the consumer for the NLD and ILD operator.</p> <p>In configuration-II the NLDO will be by-passed and this is not desirable particularly in view of the fact that already the interest in NLD service has been lukewarm. If the NLD network is by-passed then the NLDO will never be viable and the incumbent's monopoly will continue. This configuration will also need to mention the roll out obligations for the ILDO which however is not desirable. Once the ILD licence is granted the operator will himself ensure to pick up traffic from the largest areas and without bothering about the roll out obligations.</p> <p>In configuration –III, again the NLDO will be by-passed and the ILDO will have connectivity direct with the BSO. This configuration will again need the roll out obligations which in the present competitive environment should be left to the market forces, instead of being imposed from the licensor.</p> <p>This suggested approach of configuration –I is not only cost effective and viability of the project is ensured but it will also be in line with the present licence conditions of both the BSO and the NLDO.</p>
BSNL	<p>An ideal, technically implementable and legally tenable option is to permit NLDOs to provide International Long Distance Services as well. This will be easy to implement, customer friendly and cost effective.</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>The legal and technical complications of Interconnection and Revenue Sharing arrangements which may arise out of a separate license for ILDO can be avoided and at the same time the national objective of introducing competition in the International Long Distance segment shall be achieved. There is an open free unlimited competition in the National Long Distance which, shall, automatically get extended to the International Long Distance market as well.</p> <p>It may also be noted that existing VSNL deployment practice has not followed any norms in view of by and large single operator environment. This practice cannot be duplicated in the multi operator environment as it will lead to chaos in service provision and revenue sharing arrangements.</p> <p>In case separate licenses are issued to the ILDOs, the interconnectivity of ILDOs should be through NLDOs only as it is a prerogative of the NLDOs to carry traffic within the country and up to the international gateways through its own links. If ILDO licences are given separately, all NLDOs must connect to all ILDOs. If only NLDOs are permitted to become ILDOs, connectivity to other ILDOs should not be mandatory. Implementation of carrier selection shall be easy and cost effective. Selection of the NLDOs and ILDOs separately by the consumers is not technically feasible at present. In most of the countries including USA, such selection is not existing. It should, however, be obligatory on the part of the NLDOs to offer best price and quality for international calls to its customers.</p>
--	---

STAKE HOLDER'S COMMENTS ON ILD PAPER

ISPAI	Interconnectivity to ILDO should be permitted directly with Local Access Providers and not be restricted through NLDO's. Such an approach will lead to the most efficient / optimum 'Interconnect Agreement' which will ultimately benefit the Customer. In case ILDO is allowed to interconnect only with NLDO, it will lead to a duopoly or monopoly and will result in higher costs to the customers. Recognizing this possibility, NTP'99 has specifically allowed such direct interconnection as given at Annexure II, Figure II (Configuration 2) of the TRAI 'Consultation Paper' dt. Sep. 3 '01.
Nirwan Management Group	The Interconnectivity of ILDO should only be through a NLDO. One ILDO may have interconnectivity with multiple NLDO. Selection of ILDO by a customer is also technically not feasible today. In most of the countries including USA such selection is not existing. Carrying the traffic within the country up to ILD Gateway should be the prerogative of the NLDO. It is also in line with the license agreement of BSOs. Any other option will create lot of legal & monitoring problems. Selection of ILDO is not desirable and will confusion to the subscriber.
Satyam	To optimize use of infrastructure, interconnectivity to ILDO should be permitted directly with Local Access Providers and other operators, and should not be restricted through NLDOs. This will lead to the most efficient / optimum interconnect agreement which will ultimately benefit the customer. In case, ILDO is allowed to interconnect only with NLDO, it will lead to a duopoly or virtual monopoly and will result in higher costs to the customers. Recognizing this specific scenario, NTP 1999 has specifically directed the way to such direct interconnection. For example, in USA, the CLECs can connect to the ILDO directly.

STAKE HOLDER'S COMMENTS ON ILD PAPER

iv) Should a set of roll out obligations be imposed on ILDOs similar to the pattern of basic Service and NLD licenses along with associated penalties for non-compliance for establishing Services and POPs?

P.K. Roychoudhury	No rollout need be prescribed.
Estel Communications	In a multiple licensing environment no roll out obligations should be imposed. Competition will induce adequate roll-out of services.
Consumer Care Society	The past experience should guide. Since any number of excuses may pop up for unfulfilled obligations, may be it is better to offer a set of incentives for faster roll out than negatives for delays.
T.S.Subramanian Member, Telecom Board (Retd.)	International link required agreement with another country. Most of the developing and underdeveloped countries, already having a link through VSNL may not require a second operator with India. Competition will be mainly to developed countries and stipulation of a roll out plan may not achieve much.
Nitin N. Pai, Singapore	Yes, roll out obligations must be imposed to Category 1 operators only. This is to ensure that the license fee incentives provided to Category 1 operators are not abused. There is no necessity for a set of roll out obligations to be imposed on Category 2 operators.
Dr. T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	There should be no roll out obligations. It is not that there is no international service provider at all; there is the incumbent to provide. We are trying to give choice to customers; not a service which is not available. If furious and extensive roll out benefits the company, there is no reason why it would not roll out. If it does not benefit, there is no reason why TRAI or the licensor should impose a non-benefit giving and loss causing obligation on the on the company. If there is no 2 nd or 3 rd competitor, the customer is not losing anything compared to what he is getting.
IDFC	We are not in favour of the imposition of roll out obligations, but rather are of the opinion that competition and market forces will ensure the roll out of services to customers. Services in areas that are unprofitable could in principle be served out of the Universal Service Fund, though we do not anticipate that there would be such instances specifically for ILD services.
Debashish Dutta Gupta	Roll out obligation in terms of availability of the bandwidth and POPs for delivering the traffic in called countries may be prescribed.
PTC India Foundation	No. The imposition of roll out obligations has failed in relation to existing licenses. An ILDO operator selected with appropriate eligibility criteria and who has paid specified entry fee to get license will be keen to roll out the service at the earliest for maximum utilisation of his license period.

STAKE HOLDER'S COMMENTS ON ILD PAPER

<p>ASC Enterprises</p>	<p>There is a conceptual difference prompting the competition in ILD Sector vis-à-vis other sectors like Access providers (Basic, Cellular, PMRTS, Cable etc), NLDO etc. In case of Access and NLD, basic objective of introducing competition was to enhance the infrastructure through private investment while in case of ILD the emphasis, we believe, is to reduce end-user charges and provision of improved services. It is because of these reasons, we believe, Government introduced competition first in Access followed by NLD and lastly in ILD against the worldwide practice wherein in competition was introduced first in ILD followed by NLD and Access was the last. Further infrastructure is not a serious bottleneck in ILD sector even today with 4 high capacity submarine cables touching the Indian Shores and 20 plus Satellite Earth stations linking India to outside world. Further two numbers of very high capacity submarine cables are being constructed in the Private Sector. Need for introducing competition today is, to our understanding, for following listed reasons:</p> <p>a) Bring down the cost to the end user, though it is very much debateable if end user charges can be brought down simply by bringing multiple ILD Operators since major component of end-user charges is due high carriage charges of Access and NLD operator (Read DOT). The charges of International calls can come down only if competition in ILD Sector is accompanied by corresponding reductions by NLDO and access providers, and for this to happen there has to be a paradigm shift under which each segment of services (local, long distance, international) is costed on stand-alone basis. The cross-subsidisation from ILD, NLD to local has to stop. Even today VSNL gets about Rs 10/Minute out of which Rs 3/minute goes to Govt by way of licence fee and add to this artificially high charges it pays to BSNL for leased lines to link its Gateways. Let us assume, for a moment, they reduce it to Rs 3 net of licence fee/minute, will that make ISD charges comparable to those prevailing in US--answer is definite NO. Can ISD charges come down in the absence of competitive NLDO and Cost based tariffs in Local, NLD sector, answer is again definitive NO. For ISD Prices to come down there has to be re-balancing of tariff apart from healthy competition amongst Access providers, NLDO and ILDO.</p> <p>b) World-Class services: It is expected that competition will bring about enhancement in quality of services, marketing, and customer care.</p>
------------------------	---

STAKE HOLDER'S COMMENTS ON ILD PAPER

<p>Sprint Communications Company</p>	<p>Sprint understands that rollout requirements appear to be an attractive way to ensure that new entry brings tangible benefits to the public within a time certain. The Brazilian government, for example, took this course when it privatized its telecommunications system in 1998. What may not be apparent, however, is that the likely cost of any rollout requirements is carefully considered in any decision to enter a particular market. Overly aggressive or unrealistic ILD rollout requirements will simply ensure that a rational prospective ILD operator will not enter the ILD business. As several governments around the world have discovered, there is a price at which licenses will go unsold.</p> <p>Even if a new ILD operator decides to accept the rollout requirements as part of the cost of entering the ILD market, these costs will ultimately have to be recovered from Indian consumers in the rates they pay; there is no other source. Sprint therefore recommends that any rollout requirements be modest in scope.</p> <p>Finally, as a practical matter, it is unclear how meaningful rollout requirements could be imposed on new ILD operators, particularly if such operators are restricted in the manner they interconnect with NLD operators and Access Providers. If, for example, new ILD operators are permitted to only interconnect with NLD operators, it is hard to envision how the rollout requirement for a new ILD operator could consist of more than a requirement to interconnect with all NLD operators. Once interconnected with all NLD operators, the new ILD operator would presumably have access to every telephone or telecommunications facility in India. Moreover, the desire of a new ILD operator to reduce costs would naturally pressure ILD operators to interconnect with multiple NLD operators in order to force the latter to compete against each other for the ILD operator's business.</p>
<p>VSNL</p>	<p>Yes. Roll out obligations should be imposed for all regions of world as well as for all the portfolio of basic services such as telex and telegraph. The term of roll out plan should be for a period of 3 yrs during which they should have direct connectivity with not less than 50 countries. The roll out of connectivity should be not less than 20, 40 and 50 countries respectively during 1st, 2nd and 3rd year. There are two media (viz., Satellite and Submarine Cable) for International connectivity. The connectivity on one medium should not be less than 20 % of the total transmission media. The submarine connectivity should be atleast on two different cables for better reliability and diversity.</p>
<p>AT&T India</p>	<p>Roll-out obligations are not necessary for ILD licenses. Licensees should expand their networks in such places</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>and at such times as is economically rational. In contrast to a flexible market-based approach, fixed roll-out obligations can distort competition by requiring use of financial, technical, or human resources in inefficient ways (i.e., where there is no demand for the facility covered by the roll-out obligation). Further, in a newly liberalized environment, it is difficult to predict the development of roll-out-affecting issues such as dominant carrier compliance with interconnection and wholesale leasing obligations, customer acceptance of new facilities and services, or facility shortages or gluts on any particular route. Because of these variables, ILDOs should not be locked into rigid roll-out milestones that might expose them to a penalty or divert them from focusing on more customer-oriented network priorities.</p> <p>Finally, TRAI should keep in mind that ILD network requirements are very different from National or Access networks. A fully-functioning ILD network may be as simple as one international gateway plus international capacity, or it may be extremely complex depending on the service mix, customer demand by location, and the optimal number of access points, international gateways, and direct international routes. Fluid market forces should determine the roll-out that is appropriate for each new entrant.</p>
--	---

STAKE HOLDER'S COMMENTS ON ILD PAPER

COAI	<p>Yes, as mentioned in iii) above, roll out obligations must be specified.</p> <p>In addition to the roll-out obligations prescribed for interconnectivity within the country, the ILD operator must be able to deliver calls to and accept calls from all countries within a defined time frame of say, within two years.</p> <p>The coverage obligations of the ILD operator must be clearly laid down in a phased manner, with corresponding performance bank guarantees to be provided for each stage / phase of roll-out. There should also be clear penalties for non-performance.</p>
BPL Mobile	<p>Yes, roll out obligations must be specified. ILDOs must accept traffic for all countries within 2 years. For countries not having direct connectivity, arrangements maybe made for transiting traffic through other carriers. Atleast one POP should be established in each circle within 3 years so that Access providers could be directly connected without the need for connecting via NLDOs. Annual roll out obligations for the first 3 years with further stipulation of covering all the four regions of the country and penalties for default should be specified</p>
TATA	<p>1. No Roll Out obligation to be specified regarding the domestic leg. Depending on which level of connectivity the ILD operator chooses to have as per 3c above, the PoP would be established by them. With respect to the International leg, let the market decide the routes individual ILDOs would service</p>
Surya Foundation	<p>The roll out obligations may be prescribed for setting up Gateways and regional coverage with corresponding penalties.</p> <ul style="list-style-type: none"> - First Gateway and POP with atleast one NLDO should be set up within one year of the issue of licence. - Coverage for a minimum number of countries in each region may be quantified to be set up within a specified time frame. It is suggested that 70% countries should be covered within two years and balance within four years. - Performance Bank Guarantee of Rs. 20-25 crores for each stage may be taken.
Teleglobe	<p>No roll-out obligations should be imposed on ILDOs since investment considerations for ILDOs, BSOs and NDLOs differ significantly. First, BSOs and NDLOs infrastructure investments are exclusively domestic. Second, BSO and NDLO infrastructure provide access to end users for necessary basic service (e.g. emergency services, directory services). Although ILDOs make infrastructure investments domestically (e.g. gateway switches, routers), their primary investments are made in</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>international facilities such as undersea cable and satellite systems. Additionally, ILDOs need not make infrastructure investments along the scale of BSOs and NLDOs in order to efficiently provide ILD service to end users and consumers over a broad geographic area.</p>
--	---

STAKE HOLDER'S COMMENTS ON ILD PAPER

ABTO	<p>ABTO is of the view that the rollout obligations should be such that it meets the following in a time bound manner:</p> <ul style="list-style-type: none"> - to pick up traffic from all Basic Service Providers, - to ensure delivery of traffic to all countries or regions on the globe.
Bharti	<p>In response to our reply given above against Question 3(C), it may not be required to impose any roll-out obligations as this will not require much implementation effort. However, the reasonable obligations, if any, may be considered which will work as deterrent to non-serious players and at the same time should be a motivation factor for the serious players.</p>
Morgan Stanley	<p>The licensor need not impose any domestic rollout obligations so long as adequate interconnect arrangements are established. (See answer to Question ii) above</p> <p>The Licensor could let the market decide the routes individual ILDOs would service and also not require VSNL to have any similar obligations.</p>
Reliance	<p>In view of what has been suggested in 3(c) above, there is no need for the proposed roll out obligations on the lines of the BSOs and NLDOs. The only roll out obligation should be to be able to pick up traffic from all NLDOs, necessitating at least one POI with each NLDO and to ensure delivery of traffic to all countries or regions of the globe.</p>
BSNL	<p>The roll out obligations may be imposed in terms of setting up of gateways and regional coverage. Two gateways and at least one POI with each NLDO at every gateway may be established within 18 months of the issue of license. The ILD service should start operating to all the countries either by direct route or through transit arrangement via other countries. Remaining two gateways should be established within next 18 months. The coverage may be through direct connectivity or through transit agreements with other carriers/service providers.</p>
ISPAI	<p>In a multiple licensing environments, no Roll Out Obligations should be imposed. Competition and market forces will induce adequate Roll Out of Services in specified time-frame.</p>
Nirwan Management	<p>The roll out obligations may be imposed for setting up Gateways & regional coverage with corresponding</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

Group	<p>penalties.</p> <ol style="list-style-type: none"> I. First Gateway & POP with atleast one NLDO should be set up within one year of the issue of license. II. Minimum coverage of 70% of the countries in each region of the world within 2 years. III. Cent percent coverage to all the countries within 4 years.
Satyam	<p>In a multiple licensing environment no roll out obligations should be imposed. Competition will induce adequate rollout of services.</p>
Open House Kolkata	<ul style="list-style-type: none"> • Some of the participants suggested that Point of Presence at existing level I stations should be specified. BSNL representative mentioned that Point of Presence is applicable from the point the traffic is picked up but international connectivity with other countries also needs to be taken into account as all the ILD switches need not have connectivity to all the countries for optimum level of investment. Some of the participants wanted full flexibility to be given to the ILD operator so long as he is able to ensure receipt and delivery of all the ILD traffic. • Adequate infrastructure to pick up the traffic from all National Long Distance Operators was suggested by most of the participants. The participants wanted a Roll Out to be there but with not too many restrictions. Roll out was considered by some as a reflection of the seriousness or commitment of the operators for providing the infrastructure within the country's economy. The BSNL's representative and some others mentioned that there should be a set of standards and stressed the need of Network with adequate Quality of Service, adequate Grade of Service, congestion free network with no delays etc. could be part of the Roll Out requirement of technical nature. • Concept of penalties for non-adherence was stressed by some participants to be replaced by adherence to the network standards and quality of service etc.
Open House Chennai	<ul style="list-style-type: none"> • VSNL participant suggested that there should be a minimum of one POP in each of the four regions of the Country. This will require only 4 Switches thus reducing the redundancy in the Network. Upper limit of one in each circle or level I TAX station or based on traffic consideration was suggested. Network roll out could be assessed with reference to transmission of traffic to all the countries of the world. Inability to cover certain percentage of

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>countries could entail proportional penalties. Roll out should cover provision of direct routes to at least 50 countries over a period of 3 years was suggested.</p> <ul style="list-style-type: none">• One participant suggested that there should not be any artificial number for POPs. Market forces should be allowed to decide the number of POPs. Quality of Service is important.• BSNL representative suggested at least 4 POPs.
--	--

STAKE HOLDER'S COMMENTS ON ILD PAPER

<p>Open House Mumbai</p>	<ul style="list-style-type: none"> • VSNL representative wanted the Roll out obligation of ILDOs should be a minimum of 4 Switches with at least one in each of the four Regions in the country. A maximum limit based on traffic consideration was also suggested with location being at Level I TAX stations i.e. at Circle Headquarter level. Roll out based on QoS considerations and coverage of distant countries was also suggested. Out of 239 countries, modest Roll out for 3 years could be coverage of 50 countries through Direct Routes. Reliability through media diversity was also suggested. At least 20% of traffic could be routed on one media using optical fibre cable or satellite was also suggested. In case of submarine cables, media diversity using two different submarine cables to be used for security and reliability was another suggestion for Roll out requirements. • At least two gateways switches and one POI with each NLDO should also be considered as Roll out. • Another view was coverage of all countries either directly or indirectly. In the first 18 months direct connectivity to at least one country in each Continent and coverage to be increased to two countries each in all the Continent through direct Routes was suggested for the next 18 months. • Another view was there should be obligations for picking up and delivery of traffic at LDCAs through NLDOs and at least three to four countries through Direct Routing of ILD traffic. Necessary arrangements for ILD traffic to rest of the countries also needs to be ensured. • Some participants considered Roll out as a reflection of the seriousness or commitment of the operators for providing the infrastructure within the country's economy. There should be a set of standards and stressed the need of Network with adequate Quality of Service, adequate Grade of Service, congestion free network with no delays etc. Technical considerations could be part of the Roll Out requirements. • Some of the participants wanted full flexibility to be given to the ILD operator so long as he is able to ensure receipt and delivery of all the ILD traffic between India and distant countries.
<p>Open House Delhi</p>	<ul style="list-style-type: none"> • Shri D.B. Sehgal suggested that there should be obligation for carrying traffic to all countries, directly or indirectly. As far as establishment of POPs are concerned, at least one POP should be established in each circle/ state. All regions need

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>to be connected.</p> <ul style="list-style-type: none">• Shri Mogan Stanley suggested that there should no roll out obligations.• Shri Uppal consultant stated that No Roll Out Obligation is necessary. There should not be any unrealistic Roll out obligations.• Shri Dewan stated that Interconnection with all NLDOs and all countries should be included as roll out obligation.• Shri Sinha from VSNL stated that if roll out obligations are not spelt out, it could mean that resellers could be permitted. Connectivity with at least 30 to 50 countries should be necessary. VSNL representative also stated that region wise connectivity both through satellite/cable should be mentioned. Roll out obligations should be reasonable.• Shri Garg suggested that No Roll Out obligation is required. Commitments could be taken from ILDO. Dynamic allocation of Band Width and optimising the channel capacity is required.• Shri B.M. Khanna stated that Roll Out obligation should be made compulsory for at least 4 switches in the country and connectivity to all APs & all countries be included.• Shri Saxena from BSNL suggested that if for NLD Roll Out has been indicated, then it should be insisted for ILDs too.• Shri Sangal suggested that as per the present technology and through only interconnection agreements, one can manage with just with one switch.• One representative on behalf of consumer stated that Interconnection terms to be sorted out before opening ILDO segment, as problems still persist in the Basic Service Roll out obligations.• ISPAI – Only international agreements are required for passing on the International traffic.
--	---

STAKE HOLDER'S COMMENTS ON ILD PAPER

v)What should be the license period for a an ILD License?

P.K. Roychoudhury	Since investments are not very large, the initial license period should be for 10 years extendable by another ten years.
Estel Communications	The license period should be at least twenty years in-line with other licensors lately issued by DoT.
Consumer Care Society	Ten years seems to be a good period and in best in interest of the consumers to open up this segment as early as possible to competition. Twenty years could result in taking things easy and adopt a wait and watch approach.
T.S.Subramanian Member, Telecom Board (Retd.)	License period should be 20 years – same as for NLDO.
Nitin N Pai, Singapore	For Category 1 (International Facilities License) an initial term of 15 years; subsequently this license may be renewed for a term of 10 years. For Category 2 (International Service License) an initial term of 3 years, subsequent renewals for a term of 2 years.
Dr. T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	License period for an ILD should be not less than 20 years.
IDFC	Licenses may be granted for a period similar to those for Basic and Long-Distance services, which is currently for 20 years.
Debashish Dutta Gupta	Licence period of about 20 to 25 years at part with other services should be considered.
PTC India Foundation	As in case of NLDOs.
ASC Enterprises	The licence period has to be of sufficiently long duration to incentivise the operators to have longer perspective of the business. Some of assets like Submarine cables are very costly have 15-25 years life and have to be amortised over longer periods. In view of this and the fact that most of licences (Basic, Cellular, PMRTS, NLDO) in India are for 20 years, it is suggested for ILDO also the licence period should be 20 years.

STAKE HOLDER'S COMMENTS ON ILD PAPER

<p>Sprint Communications Company</p>	<p>Sprint believes that the twenty year license period for ILD operators is sensible. The license period is long enough for potential ILD entrants to plan for the long term investments that are necessary to provide telecommunications and to try to earn a return on those investments.</p> <p>Sprint also believes it would be sensible to try, so much as possible, to make the license terms of the various types of operators co-extensive. It may, for example, turn out to be efficient and sensible for ILD and NLD operators to combine their efforts through a partnership or a merger. In this case, which Sprint believes is likely, it would ease the development of the Indian telecommunications marketplace if license terms were co-extensive.</p> <p>Sprint also recommends that so long as ILD operators have fulfilled any rollout commitments to the Indian government and have otherwise satisfactorily provided service to the Indian public, they should be entitled to expect that their licenses will be renewed for another term. Renewal could be conditioned upon predefined terms (e.g. payment of a renewal license fee). Such an expectancy would tend to encourage the ILD operator to make long term commitments to the Indian market and long lived investments in telecommunications infrastructure, both of which Sprint believes would serve the Indian public's interest.</p>
<p>VSNL</p>	<p>The license period should initially be ten years, extendable by five years thereon. In view of rapid changes in the telecom field, the license conditions need to be reviewed after every five years.</p>
<p>AT&T India</p>	<p>Ideally the license period should be indefinite, with TRAI always holding authority to invoke a suspension or cancellation process that is proportionate to the particular rule violation by the operator. However, if a fixed license term is necessary, it should be no less than that granted for other telecom licenses in India: 20 years for the initial term, with a presumption towards 10-year extensions.</p>
<p>COAI</p>	<p>As in the case of other telecom licenses for Basic, Cellular & NLD Services, the license period for ILD Services too should be for 20 years, after which it would be extendable for 10 years at a time.</p>
<p>BPL Mobile</p>	<p>As in the case of other licences for Basic, Cellular & NLD Services, the licence period for ILD Services should be 20 years, extendable in steps of 10 years, at a time.</p>
<p>TATA</p>	<p>The License period should be a minimum of 20 years, similar to that of FSPs and NLDOs.</p>
<p>Surya Foundation</p>	<p>The ILDOs may have set up the Gateways, international transmission links terrestrial or satellite</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>station, as well as entering into bilateral agreements with different countries and international carriers. The system will require technological upgradation from time to time. Therefore, the licence should be for a long-term period. It may be for a period of 20 years extendable by 10 years at one time, on the pattern of NLDO and BSO.</p>
--	---

STAKE HOLDER'S COMMENTS ON ILD PAPER

Teleglobe	The TRAI notes that the duration of ILDO license provide adequate time to achieve a reasonable investment and to plan for the disposal of assets. It also notes that the duration of BSO and NLDO license at 20 years, with a provision for extension of the license. A period of 20 years, with an extension provision reasonable period of time to achieve the above commercial goals. Importantly, neither the license fee nor entry fee (should an entry fee be established), should be tied to the duration of the license in any manner.
ABTO	ABTO suggests that the period of ILD license should be 20 years extendable by 10 years.
Bharti	As set out in the case of other telecom service licences namely Basic, Cellular and NLD services, the licence period for ILD services too should be 20 years after which it would be extendable for 10 years at a time.
Morgan Stanley	As per the criteria used in determining the license period for other Licenses.
Reliance	The licence period should be in line with the BSO and NLD licence i.e., 20 years and with a provision for extension of the licence.
BSNL	Same as applicable to NLDOs.
ISPAI	The license period should be at least twenty years in-line with other licenses lately issued by the DoT.
Nirwan Management Group	The ILDOs may have to set up the Gateways, International transmission links terrestrial or satellite, as well as entering into bilateral agreements with different countries & international carriers. It is commercially beneficial for a long-term arrangement. The system will require technological upgradation from time to time. Therefore, the licence should be for a long-term period. It may be for a period of 20 years extendable by 10 years at one time. Similar to that for NLDO and BSO.
Satyam	The license period should be at least twenty years in line with other licenses lately issued by DoT.
Open House Kolkata	<ul style="list-style-type: none"> • Licence period of 20 years was suggested by most of the participants. Many of the participants commented that licence period should be identical with that of the Basic and National Long Distance service.
Open House Chennai	<ul style="list-style-type: none"> • Most of the participants suggested the licence period be same as for the NLD Licence. • VSNL representative suggested a licence period of 10 years as technology is changing rapidly. He also suggested 5 years of licence period for resellers.

STAKE HOLDER'S COMMENTS ON ILD PAPER

<p>Open House Mumbai</p>	<ul style="list-style-type: none"> • License period of 20 years was suggested by most of the participants. • Many of the participants commented that license period should be identical with that of the Basic and National Long Distance service.
<p>Open House Delhi</p>	<ul style="list-style-type: none"> • Many participants suggested the License period of ILD should be same as that of NLD • Representative from VSNL suggested the licence period be of 10 years initially. • Shri Uppal suggested that if the renewal of licence is subject to compliance to certain terms and conditions then the licence period could be anything from 10 to 20 years. If on the other hand, the license is automatically to be renewed then the licence may be for a period of 20 years. • One representative for Consumer Organisation stated that the license period be linked with Roll Out. Depending on the Roll Out, licence period could be different.

II. NATURE OF COMPETITION

- 1. TYPE OF COMPETITION (ILD OPERATORS / CARRIERS OR RE-SELLERS).**
- 2. LEVEL OF COMPETITION.**
- 3. TIME PERIOD FOR IMPLEMENTING THE POLICY REGIME FOR COMPETITION.**

STAKE HOLDER'S COMMENTS ON ILD PAPER

i) Should it be mandatory for ILDOs to establish switching facilities in the country? Should we go in for facilities based competition only?

P.K. Roychoudhury	Yes, but the right to license resellers after the first 5 years should be retained.
Estel Communications	ILDO licensing should be on the basis of establishing switching facilities in the country and switchless resellers of International bandwidth should be covered with a separate license like the IP-II Infrastructure license for the Domestic Long Distance Sector.
Consumer Care Society	It should not be made mandatory for ILDOs to establish switching facilities. Desirable to go for facilities based competition.
T.S.Subramanian Member, Telecom Board (Retd.)	It should be mandatory for the ILDO to establish switching facilities in the country for national security and ease of billing, revenue sharing, international settlement etc. We should go in for facilities based competition only on grounds similar to para 13 of TRAI recommendations for NLDO.
Nitin N Pai, Singapore	It must be mandatory for Category 1 ILD operators to establish switching facilities in the country. TRAI must allow both facilities based (Category 1) and services based competition (Category 2).
Dr. T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	No. It should not be mandatory for ILDOs to establish switching facilities in the country. They may buy or lease such a facility. The option should be theirs. Similarly, it should not be mandatory for the licensee to go in for facilities-based competition.
IDFC	No, rather than going in for only facilities based competition, both switch based and switchless resellers should be allowed, so as to enable faster roll-out of services and ensure optimal utilisation of existing infrastructure.
PTC India Foundation	In order to encourage competition, ILDOs should not be restricted to have their own switching facility in the country. Non-facility based competition should also be permitted.
ASC Enterprises	The ILDO must have its own in country basic infrastructure like Switches, Earth stations but should be allowed to lease bandwidths in Submarine cables and satellites. Initially it should be facility-based competition but non-facility based operators should be allowed after 3-4 years.

STAKE HOLDER'S COMMENTS ON ILD PAPER

<p>Sprint Communications Company</p>	<p>i)- v) Sprint believes that sound competitive telecommunications policy should predispose towards more entry rather than less and towards maximum choice in the means of entry – i.e. resale vs. facilities- or any combination of the two. For ILD, Sprint believes there should be immediate unlimited entry in any manner the applicant wishes. This is primarily because Sprint is not sure the Indian market or any market, for that matter, can ultimately support multiple operators providing only international service who do not also offer other complementary services (e.g. NLD service and/or Basic service.)</p> <p>If others share Sprint's suspicions, it will be even more difficult to attract stand-alone ILD operators when there are substantial restrictions on the number of ILD applicants and the ways they choose to address the ILD market. Unlimited entry in ILD will maximize the chances of qualified ILD operators participating in the Indian market.</p> <p>Additionally, telecommunications is, as Sprint mentioned above, a capital intensive and costly business. If a prospective ILD applicant is unsure that there is a viable market for stand-alone ILD service, that prospective applicant will be more likely to apply if it knows that it can enter the market without an immediate requirement to risk substantial amounts of capital.</p> <p>As discussed further below, in the long run, most successful telecommunications providers are driven to own and operate their own facilities. The need to invest in such facilities will ultimately winnow out the undercapitalized and incapable. Those lacking sufficient capital, technical ability, and business skills to compete in India are unlikely to do more than obtain a license. Others will attempt to compete but will fail and exit the market. Sprint therefore believes that TRAI's focus should be to encourage as many potential ILD operators as possible to enter rather than worry about excessive entry. TRAI is more likely to have long term successful entry into the ILD market by allowing many to try rather than by attempting to pick winners.</p> <p>On the broad question of resale, Sprint believes it is difficult and unwise to draw sharp distinctions between resale-based and facilities-based entry for licensing purposes. Sprint also believes it would be unwise to limit entry only to facilities-based providers. These beliefs derive from Sprint's own experience as a successful long distance provider.</p> <p>Sprint owns and operates substantial long distance facilities in the U.S. and owns interests in many submarine cables. When Sprint first entered the long distance business in the U.S. over twenty years ago, it did so using microwave radio. However, it was neither possible nor</p>
--------------------------------------	---

practical to construct a microwave radio network covering the entire United States, just as it is neither practical nor economically feasible for a new ILD operator to provide service to its customers entirely over its own facilities.

Thus, while Sprint built its microwave radio (and later, its fiber optic) network, it also leased extensive facilities and services from the AT&T monopoly in order to expand the limited reach of Sprint's own facilities. Even today Sprint leases substantial amounts of switched and dedicated service not only from access providers such as Verizon (formerly Bell Atlantic) or SBC Communications but others as well. For example, it also buys international voice minutes from other international service providers for resale when it makes commercial sense to do so.

The ability to lease piece parts of its network from or buy and resell service from AT&T while Sprint continued to construct its own network enabled Sprint to quickly establish a foothold in the market and to build a successful business. Sprint believes that an ILD operator will require similar ability and flexibility to build its network using a combination of owned and leased facilities and resold services, including NLDO switching capacity. Thus, there should be no limits on an ILD operator's ability to build its network by resale or construction of its own facilities.

Sprint understands India's apparent belief that pure or almost-pure telecommunications resellers add little or nothing in the way of telecommunications infrastructure and thus do not advance India's public policy goals. However, Sprint's U.S. experience is that in most cases, those who start out as pure resellers with few or no facilities of their own eventually want to own and control their own facilities.

The pure telecommunications reseller has little or no control over its destiny. It is always dependent on others, is little more than a distribution channel for another provider's products, and has few ways to differentiate itself from its competitors. Its costs are almost always higher than if it owned its own facilities. For these reasons, those who succeed as resellers are driven to acquire their own facilities by competitive forces. TRAI therefore should not be overly concerned if the reseller ILD operator does not immediately augment the Indian telecommunications infrastructure. If the ILD operator who initially enters the market by reselling succeeds, it will eventually want to build, own and control its own facilities.

Attempts to distinguish between resellers and facilities-based providers for regulatory purposes will inevitably require regulators to define how much resale a facilities-based operator may engage in or how many facilities a reseller can build before it is no longer considered a

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>reseller. Such regulatory exercises serve little purpose and consume resources and time that could be devoted instead to establishing viable ILD operators in India. For these reasons, Sprint urges TRAI to recommend that the government simply issue general ILD licenses and leave it to the various licensees to address the ILD market as they see fit.</p>
--	--

STAKE HOLDER'S COMMENTS ON ILD PAPER

VSNL	Yes. Yes.
AT&T India	<p>As discussed above, TRAI should immediately adopt a flexible ILD license regime that allows unlimited facilities-based and resale competition. In most liberalized markets, facilities-based competition and resale competition co-exist symbiotically to the benefit of carriers and customers.</p> <p>Most important, customers benefit from the added range of competing service options available from resale carriers at every level of the value chain (i.e., from basic transport, to protocol-enhanced data services, to custom-tailored application services, to fully outsourced enterprise-wide network and system management). Resellers also reduce the degree of price discrimination in the marketplace by bringing the quantity discounts enjoyed by large customers to lower-volume users.</p> <p>And resale actually accelerates facilities-based deployment. Resale allows a new entrant to gain familiarity with the marketplace and begin developing a customer base with minimal investment. If successful, the reseller grows traffic volumes to the point where investing in facilities makes economic sense (but with a continuing need to engage in some resale in order to provide service where its network has not yet been built).</p> <p>New facilities-based entrants benefit from resellers, too. While one is busy constructing a network, the other is busy marketing to customers and aggregating traffic to help quickly load up the new network so it is producing revenues to recover the construction costs.</p> <p>Furthermore, the presence of both resellers and facilities-based providers in the market creates a bigger incentive for third parties to go into the wholesale transport business to compete to provide interconnection services or wholesale long-haul-transmission services at superior quality, cost, and provisioning lead times.</p> <p>“Resellers are not simply competing for a share of the existing pie — they are helping to make a bigger pie, a process that aids both wealth creation and competition.”</p>
COAI	<p>To have better management and to encourage build-out of infrastructure, it should be mandatory for ILD operators to establish switching facilities in the country. Hence we should permit only facilities based competition.</p> <p>However, for optimal utilization of infrastructure, sharing of infrastructure must also be encouraged.</p>
BPL Mobile	Yes, we should permit only facilities based competition for

STAKE HOLDER'S COMMENTS ON ILD PAPER

	the first 5 years.
--	--------------------

STAKE HOLDER'S COMMENTS ON ILD PAPER

TATA	Only facilities based competition should be allowed, to deter non-serious players from entering the market, and keeping in mind inadequate bandwidth availability at present. While it may be argued that introduction of resellers could lower the price points, in the present scarce bandwidth scenario, the economics of the non-facilities based operator will very likely be infeasible.
Surya Foundation	To have better management and to encourage infrastructure in the country it should be mandatory for ILDOs to establish switching facilities in the country. However, the ILDOs may take bandwidth from NLDOs or infrastructure providers, within the country and allow international players for outside the country.
Teleglobe	The TRAI should not mandate the establishment of switching facilities by an ILDO applicant. Competition will be established and the price of ILD service will drop more quickly if some ILDOs are permitted to utilize their existing network and dispersed network intelligently rather than being forced to establish switching facilities in the country. Since the build out of international network facilities is a policy goal of the Government of India, the TRAI should not limit competition to facilities based competition only. The TRAI should permit facilities based competition as well as resale competition.
ABTO	ABTO feels that initially only facilities based competition should be allowed.
Bharti	We feel that to have better management and to encourage build-out of infrastructure, it should be mandatory for ILDO operators to establish switching facilities in the country. Hence we should permit only facilities based competition. This will also separate the serious players from the non-serious ones. However, for optimal utilization of infrastructure, sharing of infrastructure must also be encouraged.
Morgan Stanley	Only facilities based competition should be allowed, to deter non-serious players from entering the market, and keeping in mind inadequate bandwidth availability at present. It can be specified that only players with long term lease on international / domestic bandwidth be allowed to provide ILD services as transmission cost would form a large portion of the investment of ILDOs.
Reliance	The facilities based competition is the need of the hour. This is what has been permitted in the NLD sector also. The ILDO should be required to setup the switching facilities.
BSNL	The facilities based competition should only be permitted to encourage development of infrastructure in the country. It should be mandatory for the ILDOs to set up switching facilities and associated transmission centres. The ILDOs should lease bandwidth from infrastructure providers and the NLDOs for connectivity within the country. They can set

STAKE HOLDER'S COMMENTS ON ILD PAPER

	up their own international bandwidth or make arrangements with other international carriers for leasing of bandwidth, e.g. on submarine cables.
--	---

STAKE HOLDER'S COMMENTS ON ILD PAPER

ISPAI	Yes. ILDO licensing should be on the basis of establishing switching facilities, owned or leased, in the country with interconnection to Local Access Operators as per paragraph 3.2.2 (b), Annexure II Figure II (Configuration 2) of the TRAI Consultation Paper dated 03 September 2001. The norms for these facilities should be technology neutral.
Nirwan Management Group	To have better management & encourage infrastructure in the country it should be mandatory for ILDOs to establish switching facilities in the country. However, the ILDOs may have bandwidth from NLDOs or infrastructure providers within the country and from international players for outside the country.
Satyam	ILDO carrier licensing should be on the basis of establishing facilities, owned or leased, in the country. However, norms for these facilities should be technology neutral and permit, for example, router-based switching also.
Open House Kolkata	<ul style="list-style-type: none"> • All the participants wanted ILDOs to establish switching facility and other associated infrastructure. Facility based competition was the suggestion.
Open House Chennai	<p>For items (i) & (ii)</p> <ul style="list-style-type: none"> • Most of the participants are of the view that ILDO should establish Switching facilities and Transmission Centres in the Country. • Some participants were of the view that resellers are not serious players hence should not be encouraged. Only Operators who own the Switch should be allowed to operate ILD services. • One participant suggested that Fly-by-night operators should not be allowed. Markets have not yet matured for resellers. No renting of switch should be permitted. Transmitting centre (Earth Station) along with Multiplexing equipment also should be installed by the ILDO. • One participant however suggested that both "Leased" as well as "Owned" Transmission facilities should be allowed for ILD services. <p>One participant also suggested that in case there are 2 ILD Operators at any station, then they should be allowed to share end links.</p>
Open House Mumbai	<ul style="list-style-type: none"> • All the participants wanted ILDOs to establish switching facility and other associated infrastructure. • Facility based competition was the general suggestion. • Only serious players who are ready to establish switching facilities and invest in infrastructure should be allowed. • If same operator has 3 licences say BSO, NLDO and

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>ILDO, they should be allowed to have a common switch.</p>
<p>Open House Delhi</p>	<ul style="list-style-type: none"> • Shri Satyapal of COAI suggested that since infrastructure development is the main concern, the switching facilities and TAX facilities should be provided by the ILDO. Competition should facilitate consumers. • Shri Garg of NOKIA also agreed with the above suggestion. • Representative from Satyam Info suggested technology neutral approach and also suggested that reselling be permitted. • Representative from VSNL suggested that no resellers be permitted and also indicated that QOS is very important. • Representative form ASC Enterprises indicated that Security is essential. Switches are required to owned and maintained by the ILDOs. Indian market is not mature enough to encourage resellers. • Shri Uppal stated resellers should be encouraged. • Bharti AT&T – Resellers need to be encouraged. Both facilities based as well as Resellers are required.

ii) Should non-facility based competition be permitted? If yes, what should the terms and conditions for non-facility based Operators or Resellers? Should Resellers be permitted to purchase switched minutes of call time not only from ILD Operators (facility based), but also from NLDOs?

P.K. Roychoudhury	No, however this issue should be reviewed after 5 years. Once the AP, NLDO and ILDO relationships have reached a stable level the policy can be reviewed.
Estel Communications	Resellers purchase the switched minute of call time both time from ILDO's (facility based) and also from NLDO's. Infact the regulator and the licensor should encourage the institution of reseller since that is the fastest way of reaching the consumer and also stimulation of competition is very fast which benefits the consumer. Resellers also target niche areas (geographical areas as also demographical segments) and ensure intense competition and high quality service.
Consumer Care Society	At the present stage does not seem necessary to permit resellers as it is not clear how they will be able to add value to the consumers.
T.S.Subramanian Member, Telecom Board (Retd.)	The recommendations should be similar to para 13 and 14 of the TRAI recommendations for NLDO. Resale can be considered after 3 to 4 years of experience with facilities based competition.
Nitin N. Pai, Singapore	Please see the section on " License Categories " above. Category 2 operators (resellers & non-facilities based operators) must not be restricted in any manner. Under my proposal the Category 2 licensee must purchase international switched minutes from a Category 1 (or another Category 2) provider, and domestic switched minutes (or leased circuits) from an NLDO. NLDOs may not sell international services unless they have a Category 1 or Category 2 license in addition to the NLD license.
Dr. T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	Yes. Non-facility based competition should be permitted at the option of the licensee. The non-facility based operator or reseller should be permitted to purchase switched minutes of call time from ILD as well as NLD operators on terms and conditions mutually negotiated and agreed.
IDFC	As mentioned above, both switch based and switch-less resellers should be permitted. In addition, they should be allowed to purchase switched minutes from NLDOs.
Debashish Dutta Gupta	Facilities based competition should only be permitted to start with because country needs infrastructure. Re-sellers may be considered at a later date when competition matures and market is saturated.
PTC India Foundation	Yes. Terms and conditions should be as per the existing practices in other countries.

STAKE HOLDER'S COMMENTS ON ILD PAPER

ASC Enterprises	<p>The Non-Facility based competition is generally undertaken in mature markets. In developing markets, initially the emphasis should be on infrastructure build out but once strong infrastructure is in place, Regulator's emphasis should shift towards reducing end-user charges. Introduction of Resellers is, therefore, not recommended in initial stages but should be seriously considered after 3-4 years once the country has built a strong infrastructure in ILD & NLD Sector, for reasons given below:</p> <ul style="list-style-type: none"> a) Whom the resellers would sell the minutes? Even NLDO is not allowed to serve the end-user directly, can then Resellers allowed selling the minutes directly to end-user--answer clearly is NO. b) If Resellers are allowed to serve end users directly, why NLDOs, ILDOs be not allowed to serve end users directly? Resellers cannot be allowed just in one sector while not allowing in others. c) Such a provision would impact the business case of infrastructure based ILD & NLD operator. d) Finally let us consider what benefits resellers can bring on the table, nothing by way of infrastructure? Resellers in all probabilities will mushroom and prosper in call back/ bypass services at the cost of Infrastructure based ILD operators. <p>One can argue that the entry of resellers would result in lower End user charges, answer is yes but it would be at cost of quality and at the cost of infrastructure based ILD &NLD operators, which will result in lower investments in building of infrastructure and thus may harm the country/consumers in the long run.</p>
VSNL	<p>Only facility based operator should be permitted, at least for five years to begin with. ILDOs should be asked to establish switching facility in the country and they should provide facility-based services. In developing countries such as India, re-sellers should not be allowed during the initial stages. Otherwise business motive will take precedence over the speedy spread of modern technology, as re-sellers normally book bulk minutes from the facility owners and sells in the market for the benefit of arbitrage rather than QoS. In fact, we strongly recommend that only those who operate in NLD sector, should be permitted to operate ILD.</p>
AT&T India	<p>Please refer to response provided above to question I)</p>
COAI	<p>Resellers may be permitted, but only as franchisees of the ILD operator and subject to mutual agreement between the two parties. However, the ILD operator must ensure that the reseller upholds and adheres to the QOS parameters laid down by the Regulator. To facilitate this, the ILD operator should be required to register the list of his franchisees with the Regulatory Authority. Further, resellers may be permitted to provide both NLD & ILD Services so as to make it an attractive proposition.</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

BPL Mobile	Resellers may be permitted only after an initial period of 5 years. Resellers may be permitted to provide both NLD & ILD Services so as to make it an attractive proposition. However, franchisees providing ILD services on behalf of the licensee company may be permitted from the beginning.
TATA	Answer I) above.
Surya Foundation	Non facility based operators should not be permitted at this stage.

STAKE HOLDER'S COMMENTS ON ILD PAPER

ABTO	Yes. The ABTO feels that the whole issues should be left to the market forces to decide.
Global Crossing	<p>In the Consultation Paper, the TRAI questions whether only carriers who own facilities should be allowed to compete, or whether resellers also should be permitted to enter the ILD market. Global Crossing recognizes the importance of infrastructure development for India. However, Global Crossing believes that allowing full services competition, not just facilities-based competition, is an important precursor to and engine for facilities-based competition. Therefore, Global Crossing urges India to adopt a system that allows resellers full access to the ILD market. There is a common misimpression – one advanced by incumbent providers – that allowing resellers to compete in a market makes development of alternative network infrastructure less likely. In fact, the opposite is true, and Global Crossing, as a facilities-based provider, urges India to maximize the ability of resellers to compete effectively.</p> <p>Some incumbent carriers argue that if resellers have access to unbundled network elements at the same prices as carriers, then they are “likely to offer services predominantly on the basis of the existing network infrastructure.” In the short term, this statement contains an element of truth, because many competitive entrants are resource-constrained and unable to finance substantial facilities construction at the start of their operations. In the long term, however, many competitive providers that start out as resellers will become facilities-based in order to gain control over their service quality and earn the larger margins and that can be obtained only from facilities-based services.</p> <p>By encouraging competition in the resale market, India likely will have a larger number of more financially sound facilities-based providers in the long term. Many new entrants simply do not have the internal resources or access to capital to finance a network build-out. By reselling services of facilities-based carriers or by purchasing unbundled network elements, however, these providers gain access to a large body of potential customers. This customer base increases the likelihood that funds expended to finance a network build-out can be recovered and thus makes such build-outs more economically viable. For example, through resale of services and use of unbundled network elements, competitive providers can bid for business contracts that involve connecting satellite offices or telecommuters in their homes even before completion of planned construction. In addition, the ability to offer a wider range of services allows competitive carriers to be less dependent on incumbent facilities and services. For instance, new entrants will have incentives to undertake</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>their own billing and collection. In addition, the margins derived from resale also are small and becoming smaller. To increase their margins, competitive providers that start out as resellers will build and provide network functions, first for their own use and then to offer excess capacity to other competitors. This pattern was followed in the United States, where many, if not most, competitive providers began as resellers but soon moved to a facilities-based model. Thus, resale competition should not be viewed as an alternative to network construction, but as a catalyst and complement to such construction.</p> <p>In sum, while Global Crossing recognizes that there may be valid reasons for India to encourage infrastructure development, it should not be done at the expense of encouraging vigorous resale competition.</p> <p>Finally, Global Crossing urges India to adopt a class license for resellers. Global Crossing believes that resellers of transmission capacity and telecommunications services should not require any authorization from the government, so long as an underlying licensed or authorized operator exists and is responsible for providing the service. This licensing model is attractive to Global Crossing, which has operations and customers in multiple countries, in that it reduces the number of licenses that are needed. Moreover, it benefits customers, who are able to engage in "one-stop shopping," and purchase services in multiple countries through a single entity, rather than being required to deal with multiple operators in different countries. Finally, it will ease the regulatory and administrative burden on the government by reducing the number of licenses required for the same underlying network and services.</p>
--	---

STAKE HOLDER'S COMMENTS ON ILD PAPER

Bharti	In view of our reply to Question 4(a), we recommend that non-facility based competition should not be allowed.
Morgan Stanley	Refer i) above.
Reliance	Non-facilities based competition is not to be permitted to avoid proliferation of uneconomic and unviable mushrooming of the small units in this highly competitive and capital intensive sector. The consultation paper itself has mentioned that the non-facilities based re-sellers are permitted only in the mature economies where the teledensity is high. Such a system is not presently suited to Indian conditions. On the lines of NLDO, non facilities based competition should not be allowed immediately and this position can be reviewed after five years.
BSNL	Non-facility based competition should not be permitted at this stage as it will amount to permitting resellers market. It is also essential to avoid proliferation of uneconomic and unviable mashrooming of the small units in this highly competitive and capital intensive sector. The resellers, which are invariably non facilities based, can be considered at a later date after 4-5 years when the competition matures and sufficient infrastructure is made available in the country.

STAKE HOLDER'S COMMENTS ON ILD PAPER

ISPAI	Non-facility based competition should also be permitted for the ILDOs. Resellers should be permitted to purchase the switched minute of call time both from ILDO's (facility based) and also from NLDO's. In-fact the regulator and the licensor should encourage the institution of reseller since that is the fastest way of reaching the consumer and also stimulation of competition is very fast which benefits the consumer. Resellers also target niche areas (geographical areas as also demo-graphical segments) and ensure intense competition and high quality service.
Nirwan Management Group	Non-facility based operators should not be permitted at this stage when there is lack of infrastructure & competition.
Satyam	Non-facility based competition should be permitted for service providers subject to the operator meeting minimum qualifications (see i) above). Resellers purchase the switched minute of call time both from ILDOs. In fact, the regulator and the licensor should encourage the institution of reseller since that is the fastest way of reaching the consumer and also stimulation of competition is very fast which benefits the consumer. Resellers also target niche areas (geographical areas as also demographical segments) and ensure intense competition and high quality service.
Open House Kolkata	All the participants indicated that there is no need of resellers. They considered that trading is not good for Indian telecom sector. They highlighted the need of establishing the infrastructure. Many felt that setting up of the Network, would be a sign of credibility and seriousness of the ILD operators. One of the participants mentioned that at present, telecom sector in India is not matured enough to permit resellers. However the option of resellers for outgoing traffic could be considered after 4 to 5 years.
Open House Mumbai	<ul style="list-style-type: none"> • All the participants indicated that there is no need of resellers. They considered that trading is not good for Indian telecom sector. They highlighted the need of establishing the infrastructure. • Many felt that setting up of the Network, would be a sign of credibility and seriousness of the ILD operators. • One of the participants mentioned that at present, telecom sector in India is not matured enough to permit resellers. • The option of resellers for outgoing traffic could be considered at a later date, say after a gap of 5 to 10 years.

iii) Should there be limited or unlimited competition? In case of limited competition policy, what should be the mechanism to restrict entries and is it reasonably possible to arrive at the optimum number of operators in the ILD segment?

P.K. Roychoudhury	Competition should be limited. Indirect methods should be used to limit competition. These are, high entry fees, experience net worth and guarantees of minimum investment. The market will then itself determine the optimum number of players.
Estel Communications	There should be unlimited competition without restricting the number of licenses.
Consumer Care Society	Desirable to have unlimited competition but restrict the numbers by having appropriate entry conditions, say, a number of prospective entrants having a common majority share holder may be asked to restrict to a limited number (say two) asto encourage genuine competitors compete.
T.S.Subramanian Member, Telecom Board (Retd.)	There should be unlimited competition with safeguards to keep out non-serious players.
Nitin N. Pai, Singapore	In a large country like India, there is a tendency for limited competitors to shadow each other to the detriment of less lucrative areas/regions. The best safeguard for the Indian consumer and corporate is unlimited competition. The market will decide what is the optimum number of players!
Dr. T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	There should be unlimited competition from the beginning. Limited competition means subjective selection of a few licensees. It means reversion to permit license quota Raj and all the attendant evils of patronage and sleaze. The markets will determine the right or optimum number of operators.
IDFC	Unlimited competition should be permitted. As the consultation paper points out, the number of operators depends not only on the policy regarding open competition but also on economic factors, such as market size, terms and conditions of entry etc. The ILD business being complex, and involving business relationships with a number of international operators, there will probably be just a handful of players in the market, in spite of unlimited competition.
Debashish Dutta Gupta	Open, free and unlimited competition like other services e.g. NLDOs, BSOs.
PTC India Foundation	The present experience in case of BSOs / NLDOs and ISPs, would provide some useful guidance in this regard. It is felt that it may not be worthwhile to encourage more than four ILDOs, including VSNL in the first 5 years of competition. Non-facility based competition can be unlimited.
ASC Enterprises	We should allow unlimited competition for reasons given

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>below:</p> <ul style="list-style-type: none"> a) Cost of setting up ILD operation is comparatively much lower than those of Access Providers or NLDO, where Government has introduced unlimited competition. b) There are no constraints of spectrum c) Fuelled by globalisation of trade, reduction in end-user charges, the volumes of international traffic is bound be expanding exponentially which would justify couple of ILDOs. d) Limiting the number of operators is fraught with complications--if you go by bidding end user charges wont come down significantly and if you do by beauty parade there would be allegations of favouritism and possibly PILs and carries the risk of derailing the entire process. <p>Multiple operators will result in healthy competition which will benefit End users.</p>
VSNL	<p>Limited competition should be permitted and number of players should be restricted to four in addition to VSNL.</p>
AT&T India	<p>For all activities not requiring the use of scarce resources, TRAI should immediately adopt a policy of unlimited competition for new entrants, with minimal eligibility criteria that establishes financial and technical ability. Upon satisfaction of reasonable eligibility criteria (discussed further in Section 5 below), TRAI should allow parties to enter and create an intensively competitive environment. The marketplace will determine the optimal number of ILDOs for any particular point in time.</p> <p>An exception to the unlimited competition policy should apply to Bharat Sanchar Nigam Ltd (BSNL) and Mahanagar Telephone Nigam Ltd (MTNL). As near monopoly / dominant providers of fixed, access and national long-distance, BSNL and MTNL could leverage their market power into the ILD segment were they granted ILDO licenses. A structural safeguard – such as requiring that their ILD operations be managed at an arm's length basis as entirely separate subsidiaries – would mitigate the concern to some degree because the TRAI could monitor BSNL and MTNL to help ensure they do not discriminate in favor of their own subsidiaries. But potential investors in new entrants are likely to be concerned and will need explicit reassurance about the fairness of the ILD marketplace, particularly when the Indian government is majority owner not only of BSNL and MTNL, the incumbent dominant fixed-line operators, but also of the incumbent dominant ILD operator.</p> <p>Given the government's existing participation across the complete range of fixed, cellular, NLDO and ILD services, it is paramount that special consultation under the TRAI</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>Act, Section 11(l)(a)(i) Need and Timing, as well as Section 11(l)(a)(ii) Terms and Conditions, especially for BSNL and MTNL, be conducted separately, if and when their entry into international long-distance is considered appropriate. Since BSNL and MTNL respectively, have a monopoly and near monopoly in NLDO and fixed, the TRAI must establish and strongly enforce a set of rules that prevent dominant operators from engaging in anti-competitive practices.</p>
COAI	<p>COAI believes that as in the case of NLD services and because there is no scarce resource involved, there should be open competition in the ILD sector.</p> <p>Open competition will permit the new entrants to choose their time of entry and will also avoid delay on account of a bidding process, which would be necessary in case of limited competition.</p> <p>Finally however, it is the size of the market that will determine the number of players and the degree of competition.</p>
BPL Mobile	<p>Market size will automatically limit the competition. This has already been proven in case of NLD Services, where only two players have so far obtained the licence. This will permit the new entrants to choose their time of entry and will also avoid delay in bidding process, which would be necessary in case of limited competition.</p>
TATA	<p>Competition should be unlimited. However, by adopting a suitable Entry Criterion non-serious players can be avoided entry.</p> <p>However, with respect to the incumbent operators viz., BSNL, MTNL should be allowed to apply for ILDO license only after they get their entire network ready to handle Carrier Selection.</p>
Surya Foundation	<p>To competition should be unlimited. It will however be subject to various conditions mentioned above.</p>
Teleglobe	<p>Unlimited competition should be introduced. Limited competition models will ultimately delay the introduction of the benefits of competition. Countries that have attempted to establish open competition (e.g. Israel, United Kingdom) have ultimately abandoned that approach and permitted open competition. Given the rate of telecom liberalization around the world, an approach that favors the expeditious introduction of competition in the ILD market is preferable.</p>
ABTO	<p>ABTO feels that as has been the practice of the government in Basic, Long Distance, ISP and all other telecom services, the level of competition should be unlimited.</p>
Bharti	<p>There should be unlimited and open competition. The</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>world-wide trends have shown that unlimited competition has not actually attracted more number of operators. This actually depends on lot of other factors such as potential, economic environment etc.</p> <p>In our own country this has been proved to be correct in the case of NLDOs.</p>
Morgan Stanley	<p>There are no spectrum issues involved, so as in NLD, unlimited competition should be allowed. Non-serious competitors should be deterred by other eligibility criteria & market dynamics should be allowed to determine the number of competitors.</p> <p>However, with respect to the dominant incumbent operators – viz. BSNL, MTNL could be allowed to apply for ILDO license only after they get their entire network ready to handle Carrier Selection.</p>
Reliance	<p>Since there is no scientific formulae to fix the appropriate number of operators which can be called an optimum number, we should follow the policy of unlimited competition without any restriction on the number of operators. This has been the trend in the country in respect of other services also, like BSOs, NLDOs, ISP, etc.. Let the market forces decide the optimum number of operators.</p>
BSNL	<p>Unlimited competition without any restriction on the number of operators may be introduced as has been done for NLDOs and Basic Services. Let the market forces decided optimum number of operators. There should be a pre-requisite requirement to be an NLDO for getting licence for ILD Services.</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

ISPAI	There should be unlimited competition without restricting the number of licensees.
Nirwan Management Group	The competition should be unlimited. It will automatically restrict through the linkage with NLDO.
Satyam	There should be unlimited competition without restricting the number of licenses. As the example of the European Union shows, open competition has allowed market forces to determine the number of licensees who actually offer services.
Open House Kolkata	General consensus was in favour of unlimited competition on the pattern of Basic and National Long Distance Services.
Open House Chennai	<ul style="list-style-type: none"> • One participant suggested that there should be only 4 operators. • An advocate participating in the discussions suggested that the competition should be unlimited. • Another participant was of the view that the market forces should be allowed to determine the number of operators. • A representative from TATA suggested that considering national security, many players should not be allowed.
Open House Mumbai	<ul style="list-style-type: none"> • General consensus was in favour of unlimited competition among serious players only. However there should be restrictions so that resellers may not enter the market by manipulations. • VSNL representative wanted the number of players to be restricted to say 3 or 4.
Open House Delhi	<ul style="list-style-type: none"> • All the participants were for Un-limited competition • Representative from VSNL suggested stringent terms and conditions to restrict for serious players.

iv) If unlimited competition is introduced, should this be phased-in over a specified period or be introduced from the beginning itself?

P.K. Roychoudhury	Limitations on competition are needed only in the initial period. Apart from entry fees, the other criteria can be relaxed to attain at least 3 new ILDOs. The licenses should be non-exclusive and after 5 years unlimited competition with only the entry fee criteria can be considered.
Estel Communications	Unlimited should be introduced immediately just as in case of NLDO, Basic Telephone Service and ISP.
Consumer Care Society	Desirable to have unlimited competition but restrict the numbers by having appropriate entry conditions, say, a number of prospective entrants having a common majority share holder may be asked to restrict to a limited number (say two) asto encourage genuine competitors compete.
T.S.Subramanian Member, Telecom Board (Retd.)	Unlimited competition should be introduced from the beginning itself.
Nitin N. Pai, Singapore	Unlimited competition must be introduced from day one.
Dr. T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	There is no right way in which unlimited competition can be introduced in a phased way; it tantamount to periodically limiting the competition with the attendant evil of subjective selection of the licenses. Therefore, there should be unlimited competition from the beginning with simple i.e. nominal entry fee and a need-based (for provision of public telephones and Internet kiosks on a community basis in villages, educational institutions, libraries and primary health centers) revenue share.
IDFC	Unlimited competition should be permitted from the beginning itself.
PTC India Foundation	In phases as mentioned in iii) above.
ASC Enterprises	For reasons stated in comment to Para 4c above, unlimited infrastructure based competition should be started from the beginning but resellers should be allowed after 3-4 years.
VSNL	Not applicable from VSNL's viewpoint.
AT&T India	Please refer to the response provided above to question iii).
COAI	Unlimited competition should be introduced from the beginning itself.
BPL Mobile	Unlimited competition should be introduced from the beginning itself.
TATA	No need for any phased approach. Let the market forces decide the level of competition.
Surya Foundation	Unrestricted entry should be allowed from the initial stage its
Teleglobe	Unlimited competition should be introduced at the outset of the ILD market opening. The TRAI posed the question

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>of whether phased-in competition would be desirable. Countless telecommunications market studies, by entities such as the World Bank, the OECD and private groups, demonstrate that the adoption of full competition results in increases in the per capita number of telephone mainlines, the number of payphones, connection capacity and decreases in the price of telephone calls. A decision to introduce restricted liberalization would seriously delay the benefits resulting from competition to the detriment of Indian end users and consumers. Not only will unlimited competition attract desired investment from all interested entities, it will also stimulate the established operating companies to focus attention on customers, improve service, accelerate network expansion, reduce costs and lower prices.</p>
ABTO	<p>ABTO feels unlimited competition should be introduced from the beginning itself.</p>
Bharti	<p>It would be good that it is introduced from the beginning itself. This could be on the same lines as done in the case of NLDOS.</p>
Morgan Stanley	<p>Introduced from the beginning itself for private players, in a phased manner for dominant incumbent operators as detailed above.</p>
Reliance	<p>Unlimited competition should be introduced from the beginning.</p>
BSNL	<p>The unlimited competition may be introduced from the beginning itself.</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

ISPAI	Unlimited competition should be introduced immediately just as in case of NLDO, Basic Telephone Service and ISP.
Nirwan Management Group	From the beginning itself.
Satyam	Unlimited competition should be introduced immediately just as in case of NLDO, Basic Telephone Service and ISP.
Open House Kolkata	Most of the participants wanted unlimited competition from the beginning itself. Cellular Operator's representative, however, mentioned that the level of competition should be increased gradually. Initially, a number of serious players with high Networth, telecom experience and capable of supporting investment of the order of Rs. 4000 to 5000 crores was desirable. At a later stage, the number of players could be increased through the resellers route i.e. after 4 to 5 years.
Open House Mumbai	<ul style="list-style-type: none"> • Most of the participants wanted unlimited competition from the beginning itself. • There was a suggestion that unlimited competition based on Switching facilities and other associated infrastructure be introduced immediately. • At a later stage, the number of players could be further increased through the resellers. However this should be after 5 to 10 years only after adequate infrastructure is in place.

v) Should the option of infrastructure leasing include the leasing of switching capacity from NLDOs?

P.K. Roychoudhury	This applies to state level switches and should be permitted.
Estel Communications	The option of infrastructure leasing should be specifically permitted as in case of the Basic Service and NLDO licensing.
Consumer Care Society	Yes, this will help reach the benefits of liberalization faster.
T.S.Subramanian Member, Telecom Board (Retd.)	ILDO should be permitted to lease out switching capacity from NLDO.
Nitin N. Pai, Singapore	Yes. NLD operators can generate revenues for their own business by leasing not only switching capacity, but also leased circuits.
Dr. T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	Yes. The licensee shall have the option of leasing switching capacity from NLDOs.
IDFC	Yes, such an option should exist.
PTC India Foundation	Yes.
ASC Enterprises	<p>Sharing of Infrastructure is a good concept and needs to be encouraged in developing countries like India where resources are limited and cannot afford the luxury of unutilised infrastructure. However this should not be done just in one sector instead regulator should consider extending this facility to other sectors like Access Providers or NLDO as well where the infrastructure costs are much higher and sharing of infrastructure could be really helpful.</p> <p>Regulator/Government should seriously consider allowing sharing of Active infrastructure (including Switches) in all sectors be it ILD or NLD or Access Providers.</p>
VSNL	NO. However, if an operator is NLDO as well as ILDO, such an operator should be permitted to use its own switch for both NLDO and ILDO operations. Similarly, if he is also a basic service operator, there should be no objection to use of one switch for ILDO / Basic service.
AT&T India	In a fully liberalized environment that encourages facilities-based competition and all forms of resale competition, ILDOs should be permitted to lease both switching facilities and transmission capacity from other operators. Resale and reuse of existing infrastructure enables new entrants to enter or expand their presence in the market without the delay of first replicating the extensive monopoly-funded network of the incumbent operator. Resellers can also provide a valuable

STAKE HOLDER'S COMMENTS ON ILD PAPER

	revenue source to new facilities-based providers.
--	---

STAKE HOLDER'S COMMENTS ON ILD PAPER

COAI	<p>COAI believes that the International Gateway Switch, which would be the property of the ILD operator, could be shared between two ILD operators subject to mutual agreement.</p> <p>NTP 99 had provided for sharing of infrastructure between service providers. Pursuant to the NTP 99 provisions, on August 9, 2000, the Government issued a notification permitting sharing of infrastructure between service providers.</p> <p>In the light of the principles adopted by NTP 99, we believe that ILD operators too, should also be permitted to share their infrastructure - both in respect of switching capacity and transmission medium.</p>
BPL Mobile	Infrastructure leasing should be permitted both in respect of switching capacity and transmission medium.
TATA	No, option of infrastructure leasing should not include the leasing of switching capacity from NLDOs.
Surya Foundation	The gateway switches should be the property of the ILDO.
Teleglobe	Whereas the TRAI should permit all forms of market entry, including resale, infrastructure leasing of switching capacity from NLDOs should also be permitted so that "switchless resellers" may enter the ILD market. The policy considerations stated in response to Question 4c) apply with equal force to non-facilities based resale and facilities based resale. Switchless resellers provide a channel for wholesale operators and can serve as a hedge against a wholesale glut in the ILD market.
ABTO	ABTO feels that infrastructure leasing may include leasing of switching capacity from NLDOs and in addition to BSOs.
Bharti	We believe that the licenses should be based on "facilities based" services. However, by mutual consent, if some of "elements of Infrastructure" are shared by the two ILDO operators, that should be allowed as per mutual consent between the two operators.
Morgan Stanley	No, option of infrastructure leasing should not include the leasing of switching capacity from NLDOs.
Reliance	If this includes the leasing of switching capacity also, then what is left for the facility based competition? Infrastructure leasing should not include leasing of switching capacity.
BSNL	Infrastructure leasing should not include leasing of switching capacity. As already submitted above, it is the facilities based competition which country needs at present. If leasing of switching capacity is also permitted then what else is left for the facility based competition? It will become pure reseller business.

STAKE HOLDER'S COMMENTS ON ILD PAPER

ISPAI	The option of infrastructure leasing should be specifically permitted as in case of the Basic Services and NLDO licensing and include the leasing of switching capacity from NLDOs.
Nirwan Management Group	The gateway switches should be the property of the ILDO.
Satyam	ILDOs should be allowed to lease infrastructure from any service provider or RoW owner, as in the case of the Basic Service and NLDO licensing.
Open House Kolkata	<ul style="list-style-type: none"> • Many of the participants wanted ILDOs to set up their own infrastructure. However, a few participants mentioned that the leasing of switching capacity from the NLDOs could be an additional option with the ILDOs and TRAI need not to put any restriction on the same. • The BSNL's representative also mentioned that the switches handling National Long Distance and ILD traffic had difference in the switch configuration. With respect to the NLD Network's TAX switches get their clock through Master and Slave concept which is not the case with ILD Switch, where precision clock agreements are mandatory. As such if sharing NLD's switching architecture is to be done, there would be need of upgradation of the NLD switches for ILD's requirement.
Open House Mumbai	Many of the participants wanted ILDOs to set up their own infrastructure. This will limit entrance of serious players only.
Open House Delhi	<ul style="list-style-type: none"> • Shri D.B. Sehgal agreed to such a proposition and indicated that the responsibility should be with ILD. • Representative from VSNL indicated that leasing facility should not be allowed as the ILDO could be facility based. If BSO & ILDO have same switch sharing of infrastructure could be encouraged so that the available capacity need not be under-utilised.

STAKE HOLDER'S COMMENTS ON ILD PAPER

III. SELECTION CRITERIA

1. ELEGIBILITY CRITERIA

2. SELECTION CRITERIA

STAKE HOLDER'S COMMENTS ON ILD PAPER

i) What should be the eligibility criteria? Should it include Financial parameters and minimum experience of ILD operations elsewhere. Should it also include the combined net worth of promoters above a particular threshold, a minimum percentage of stake in the total equity, a stipulated number of years of experience in Telecom Service Sector particularly in Long Distance Operations, or any other criteria?

P.K. Roychoudhury	All items mentioned should be considered. An additional item would be total investment guaranteed.
Estel Communications	There should be no eligibility criteria based on financial parameters or technical parameters. In case of ISP licensing this method was followed and it has already become evident that even if multiple people obtain the licenses it is the market forces and financial market which determine the actual number of operators who implement and successfully run operation. There is no need for the licensor to artificially screen out certain applicants.
Consumer Care Society	Promoter's financial stake/parameters, previous track record of their ventures, holding pattern in other Indian enterprises shoes main business is telecommunications/computers and whether there are any disputes pending against them could be all relevant in fixing eligibility criterion. It is not necessary to insist on experience only on long distance communications or even communications because there is hardly any distinction between computers and communications with the progressive merger of these technologies. In order to attract younger technical/market/management savvy promoters, too long a period of experience should not be prescribed. However, too short a period also should not be prescribed to exclude fly by night operators.
T.S.Subramanian Member, Telecom Board (Retd.)	The eligibility criteria should be similar to that adopted for NLDO.
Dr. T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	<p>The talk of serious and non-serious players is nearly frivolous, especially if it is to be decided by the licensor or the TRAI. Please leave it to the market. Similarly the eligibility criteria should not be aimed at excluding some and facilitating a few preferred ones. The amount of capital required when the facilities like transmission and switching capacities are not invested in but leased, is not much. Therefore, the financial parameter should refer to the net-worth of the seeker of licenses and should be different for those who are resellers and those who are facility-based competitors. Also, when once no obligatory roll-out is prescribed, the amount of net-worth or capital of a company cannot be arbitrarily prescribed.</p> <p>Minimum experience is another arbitrary parameter. Until competition was permitted, there is no question of experience for any body in the country excepting for the incumbent. International dialing was excluded for everybody except VSNL. Then what is the experience we</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>are wanting and how will any one get it? Is the experience for providing local service or intrastate service or national long distance service a substantive experience for provision of long distance service? And what relative weights would be given to the one who has experience only in the intrastate service or who has only inter state service or who has got fixed telephony or cellular mobile telephony? There is no point in insisting upon experience. When real estate companies are establishing engineering colleges, and that is legal and moral, why is any experience sought to be prescribed for providing international long distance service? The company which is seeking the license is the one which is going to put the money. Let it take the risk. If it fails, so be it.</p> <p>The entry fee should be related to the territory or population for covering which the license is wanted/given. Supposing the license seeker is wanting to provide international service only in the Bombay area, then the entrance fee should be related to the total revenue that the Bombay subscribers of all companies are together incurring on international service. This is easily ascertainable for each area from the Bharat Sanchar or from the VSNL. A proportion of it, say one or two percent, could be the entrance fee. Since the licensing will be open, if another license is to start after five years, the licensor can ascertain what are the international revenues in the previous accounting year, and prescribe 2% of them as entrance fee.</p>
IDFC	<p>To ensure that serious players enter the market – financial parameters could be defined combined with an appropriate entry fee. The other parameters mentioned above need not be specified, as it can be assumed that operators with the required financial strength that are willing to make the investment in ILD services would possess the necessary experience / qualifications to provide these services. In any even, a number of these issues would be evaluated by financiers as part of their due diligence.</p>
Debashish Dutta Gupta	<p>Eligibility criteria may be at par with NLDOs. Prior international experience of telecom services should not be mandatory. Similarly, foreign participation should also not be mandatory.</p>
PTC India Foundation	<p>Yes. These should include financial parameters and minimum telecom service experience. Based on guidelines for NLDOs and Basic Service licenses, the following are recommended:</p> <p>i) Network – Fixing a very networth such as in case of NLDOs restrict the number of entrants as has been seen in case of NLDOs. In order the induce competition it would be best to have a reduced</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>networth criteria and reliance should be placed on an “operating experience partnership with an International Telephony Service or Network Provider”.</p> <p>ii) Operating Experience Qualification – The criteria should be alliance with a service provider rather than Hardware and Software provider. Experience in International Data Communication and International Internet Backbone Operation should be accepted.</p> <p>Existing Infrastructure Capacity – Weightage should undoubtedly be given for existing infrastructure on the international side. This is relevant on account of IP Technology where the network infrastructure is almost the same both for Data & Voice. Any company having POPs outside India and supported backbone infrastructure with experience of High Speed Data Communication would undoubtedly be able to roll out services in the shortest time frame as against a new licensee who has to make fresh investment in setting up the infrastructure. Integrated IP voice and data networks already carry for more traffic than circuit-switched networks, and the trend seems universal.</p>
ASC Enterprises	<p>As stated in comments in preceding paras, the cost of setting up ILDO infrastructure are comparatively low, there are no constraints from Spectrum, therefore, the entry barriers in the form of entry fee or Net worth should be kept low.</p> <p>The International Telecom sector is a vital sector from National Security considerations and Government must incorporate suitable provisions in the licence conditions to ensure that national security is not compromised. Along with other security related provisions, following conditions are recommended:</p> <p>a)The ILD operations should be with an Indian registered Company</p> <p>b)Foreign Equity including investments from foreign FII, NRI, OCB etc should not exceed 49 %,</p> <p>c)CEO of the company should be an Indian</p> <p>d)Promoters should not be allowed to sell their equity for at least 3 years from date of commercial operation.</p> <p>e)ILDO should be obligated to fully co-operate with security agencies</p> <p>f)To ensure continuation of services in situations like conflicts/wars etc , it is recommended that ILD licence should obligate ILDO to send certain percentage of its ILD Traffic via Indian owned Infrastructure facilities. With the privatisation of INTELSAT, provision of such a clause</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	has become important. g)Net worth of Rs 250 crores seems reasonable.
--	---

STAKE HOLDER'S COMMENTS ON ILD PAPER

<p>Sprint Communications Company</p>	<p>Answers i) – v) Sprint believes that TRAI should, as a pro-competitive policy matter, lean towards more and easier entry. That is particularly the case here as it is unclear that the market will support stand-alone ILD operators. This also implies that prequalification requirements should be the minimum necessary. That said, Sprint also understands that TRAI would want prospective ILD operators to be legally, technically, and financially qualified.</p> <p>If TRAI decides to recommend some type of prequalification requirements, Sprint suggests that prospective ILD operators be required to post a substantial performance bond in lieu of the government having to evaluate technical complex technical proposals and financial viability. If the ILD operator did not begin providing service within a time certain, the bond would be forfeited.</p> <p>Such a bond could be submitted in cash or under an irrevocable letter of credit drawn in favor of the Indian government. The sum should be substantial enough to deter those who have no intention of providing service, yet small enough that it would prove no obstacle to those who intended to provide service and possess the ability, capital, and will to do so. As mentioned above, because telecommunications is a costly, capital intensive business, Sprint believes a performance bond in the amount of US\$ 1,000,000 should achieve both goals.</p> <p>For the reasons previously mentioned, Sprint also believes that full and open competition is preferable to limited competition from a policy standpoint. As the TRAI itself recognized at 4.3.3.1, limited competition, such as a duopoly, provides a profitable market for the new entrant and gives the incumbent a longer time to adjust to a changed environment. As the TRAI also recognized, however, these advantages are ultimately paid for by the consumers whom competition is supposed to benefit.</p> <p>If the TRAI recommends the full and open competition that Sprint supports, any new ILD operator will know that it will not be sheltered from competition and will have entered the market in spite of this. It will therefore have no unrealistic expectations for protection. Sprint notes that in countries like South Africa where the incumbent was promised protection from competition for a limited time, there has been substantial uncertainty, litigation and controversy over the scope of that protection. Without such a policy of duopoly, there will be no occasion for such conflicts.</p> <p>As for VSNL, Sprint believes that it has been obvious to all for some time now that competition is coming to the Indian telecommunications market. Any additional protection from competition for VSNL by limiting ILD entry will simply be an extra bonus to VSNL and its</p>
--------------------------------------	--

	<p>shareholders.</p> <p>As for the amount of the license fee, Sprint recommends that any entry or license fees, whether one time or recurring, be limited to an amount no greater than that necessary for the government to recover its cost of regulation. If the TRAI is serious about trying to encourage entry into the ILD market, such entry is furthered by keeping regulatory and licensing fees as low as possible.</p> <p>While auctions have been used to award licenses with varying degrees of success in other countries, including the U.S., Sprint believes the TRAI should be cautious in using auctions under these particular circumstances. Again, this is because Sprint is unsure whether a viable stand-alone market exists for ILD service in India. If it is not, there may be few or no bids, and any bids may be very low.</p> <p>As for permitted cross-ownership between holders of VSNL equity and new ILD operators, Sprint believes that those who have substantial (say more than 25%) equity interests in VSNL should not be permitted to acquire new ILD licenses. The reasons are exactly the ones pointed out by the TRAI at Section 5.4: the concentration of market power and the possible damage to competition. If VSNL were able to obtain a new ILD license, for example, there would be little or no reason to have competition. And those having interests in the commercial success of both VSNL and its direct competitor(s) would be in a difficult position in discharging the duties they owe each entity.</p> <p>Although it did not ask this specific question, Sprint also believes that the TRAI should consider carefully the ramifications of allowing BSNL and MTNL into the ILD market. BSNL and MTNL are monopolists who have physical connections and business relationships with every telephone subscriber. These physical connections give them certain fundamental advantages over any other ILD operator.</p> <p>For example, BSNL and MTNL already know which of their customers make many international calls. If they were permitted to provide ILD service without restriction, they could easily identify and market their ILD offerings only to these customers. It would be extremely difficult for a stand-alone ILD operator to compete against a BSNL or MTNL ILD offering without equal access to such valuable information.</p>
--	--

STAKE HOLDER'S COMMENTS ON ILD PAPER

<p>VSNL</p>	<p>Eligibility criteria should include financial parameters, minimum experience of telecom operations, and reputation of management. The net worth of the promoters with not less than 15% share in the total equity should be considered for threshold. Atleast one of the promoters should have experience of a minimum of three years in telecom operation. Financial parameters should include a net worth of Rs 2500 crore, equity share capital of Rs 250 crore and foreign investment limited to 49 %. Bidder should build a sound network for which he should submit a network plan alongwith the application. ILDO must also be an NLDO.</p>
<p>AT&T India</p>	<p>To ensure that operators are qualified to provide reliable service to customers, it is appropriate for TRAI to establish reasonable eligibility criteria. The criteria should be minimal and should recognize that ILD is very different from access services, so no assumption should be made that criteria relevant to Access Providers would be relevant to ILDOs.</p> <p>The critical eligibility issues to consider in an application should be: (1) financial capability, (2) technological expertise, and (3) customer-care experience. We do not believe that fixed minimum requirements should be established for any of these three categories. Instead, the eligibility information should be weighed according to the proposed activity of the ILD applicant. For example, with a party intending to provide pure resale services, their customer-care experience and financial capability may be far more important than their technological experience. For a party proposing to provide facilities-based networks, technological expertise may be of paramount importance. But in this era of consultants and out-sourcing, well-qualified expertise in any area can often be easily purchased.</p> <p>In all contexts, the eligibility review should be reasonable, and should only seek to screen out applicants who raise fundamental concerns about their ability to provide reliable service to customers and to comply with TRAI regulations.</p>
<p>COAI</p>	<p>1. Networth – the networth of all promoters having minimum of 10% equity holding in the bidding company should be counted.</p> <p>Experience - experience of ILD operations may be desirable, but not mandatory. Experience of operating Basic, Cellular or NLD services for a minimum period of 3 years in one or more circles, should be considered adequate. Experience of any promoter with more than 10% equity in the bidding company should be considered for meeting the eligibility criteria.</p>
<p>BPL Mobile</p>	<p>Some or all of the following should be prescribed as</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>eligibility criteria:</p> <p>1.Networth - combined networth of all the promoters having minimum of 10% equity holding in the company.</p> <p>2.Experience - the experience of ILD operations need not be necessary. Experience of operating Basic, Cellular, NLD or ILD services should be adequate. Experience of any promoter(s) of holding/investing company with more than 30% equity in that company should also be considered adequate.</p>	
TATA	<p>The eligibility to enter ILD services be based on both financial as well as prior experience in Telecom Service (BSOs, CMSPs, NLDs), should not confine to the experience in ILD alone. Financial parameters should include, the Entry Fees, adequate Paid Up Equity Capital and the backing of promoters with high Net Worth.</p>	
Surya Foundation	<p>These may be similar to that of NLDO. However, the combined networth figure stipulated could be lower than that of NLDO, as the cost of setting up the ILD may be less.</p>	
Teleglobe	<p>Licensing criteria can include financial background and telecommunications operations experience. However, said criteria must be set at a reasonable level. For facilities based operators, financials and experience in network operations are important aspects of an applicant's eligibility. The extent of capital and network experience requirements must correspond to the proposed network and business plan put forward by the applicant. As stated above, the proposed network investment should not be established through TRAI-imposed roll-out obligations. Otherwise, the TRAI might risk setting network investment levels that operate to exclude certain operators whose proposed investment falls below an otherwise arbitrary threshold.</p>	
ABTO	<p>ABTO feels that reasonable financial parameters should be a key eligibility criteria. Experience in telecom sector need not necessarily mean experience in ILD services.</p>	
Bharti	Item	Comments
	Financial parameters	Yes
	Minimum experience of ILD operations	Not necessary.
	Net worth of promoters	Yes, This may be as per NLDO.
	A minimum percentage of stake in the total equity	Promoter may have minimum 25%. Foreign participation not to exceed applicable limits.
A stipulated number of years of experience in Telecom Sector	Directly or indirectly 3 years. Experience of holding and its subsidiary should also be allowed.	

STAKE HOLDER'S COMMENTS ON ILD PAPER

	Or any other criteria?	Existing NLDO to be given priority.
--	------------------------	-------------------------------------

STAKE HOLDER'S COMMENTS ON ILD PAPER

Morgan Stanley	Eligibility criteria should not include experience in ILD and/or LD specifically but include experience in telecom sector [BSO, CMSP,etc . Criteria like Minimum Networth, Paid up Equity etc. should be determined on the same basis as was done for the NLD licenses.
Reliance	<p>The eligibility criteria should be such that the non-serious players are not encouraged to venture into such fields. Financial parameters should be similar to those earlier decided for the NLDO. Minimum paid up capital and minimum net worth of the applicant company and its promoters having at least 10% equity stake should be recommended for eligibility. This can be on the lines of the NLD licence conditions.</p> <p>Annual licence fee should be fixed in such a way that it is sufficient to meet the administrative costs and USO obligation. Both inclusive the Annual revenue share as licence fee should not exceed 5% of the annual revenue.</p> <p>The experience in the telecom services sector (not necessarily in the ILD services)of any one of the promoters having at least 20% stake in the applicant company should be prescribed. It is not necessary for all the promoters to have experience in the telecom services sector. There is no need to prescribe any minimum years of experience in the telecom services sector. This is also in line with the policy adopted in the case of Basic and NLD services.</p>
BSNL	The eligibility criteria should be such that the non-serious players are not encouraged to venture into such fields. The best option, as explained above, is to permit NLDOs to become ILDOs also. Separate license for the ILDOs shall increase complexities for carrier selection, interconnection and revenue sharing arrangements without accruing any additional benefits to the consumers in particular and the country as a whole. In any case, the eligibility criteria for ILDO should be same as that of NLDO.

STAKE HOLDER'S COMMENTS ON ILD PAPER

ISPAI	There should be no eligibility criteria based on financial parameters or technical parameters. In case of ISP licensing this method was followed and it has already become evident that even if multiple people obtain the licenses it is the market forces and financial market which determine the actual number of operators who implement and successfully run operation. There is no need for the licensor to artificially screen out certain applicants.
Nirwan Management Group	These may be similar to that of NLDO. However, the combine network may be reduced as compared to NLDO, as the cost of setting up the ILD may be lesser.
Satyam	There should be no eligibility criteria based on financial parameters or technical parameters. In case of ISP licensing this method was followed and it has already become evident that even if multiple people obtain the licenses it is the market forces and financial market, which determine the actual number of operators who implement and successfully run operation. There is no need for the licensor to artificially screen out certain applicants.
Open House Kolkata	Consideration of the serious players with high Net worth and telecom experience in India was suggested as the eligibility criteria. The participants wanted the entry of only serious players who are capable of making high investments and necessary infrastructure across the country. Some of the participants mentioned that the modality selected for the NLD services could apply equally for the ILD service sector also.
Open House Chennai	<ul style="list-style-type: none"> • The participants wanted the entry of only serious players who are capable of making high investments and necessary infrastructure across the country. Some of the participants mentioned that experience in the NLD/ Access Services as one of the requirement of consideration for the selection of ILD Operator. They mentioned that experience of ILD license would restrict the entry of existing Basic and Cellular Operators and only foreign ILD Operators would get undue preference and they possibly would sell the equity after some time. • The Net worth of at least Rs. 2500 crores was also mentioned by one of the participant for selection of ILD operator. • One participant suggested that Telecom experience should be the main consideration of selection and not just ILD experience. • One participant wanted foreign participation to be allowed only if international bank guarantee ensuring presence for longer period and not just for obtaining the license.
Open House Mumbai	<ul style="list-style-type: none"> • Consideration of the serious players with high Net worth of at least 2500 crores and telecom experience in India was suggested as the eligibility criteria.

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<ul style="list-style-type: none"> • The participants wanted the entry of only serious players who are capable of making high investments and necessary infrastructure across the country. • Some of the participants mentioned that the modality selected for the NLD services could apply equally for the ILD service sector also. • NLDOs should be encouraged to become ILDOs and in such cases interconnection problems and Carrier Selection related issues could get simplified.
<p>Open House Delhi</p>	<ul style="list-style-type: none"> • Most of the representative was of the view that the eligibility criteria should be those similar to NLD. • Representative from AT&T stated that eligibility should be on Financial, Technological and Customer Care parameters. But the eligibility conditions should be minimum. • Representative from Bharti was of the view that they should be similar to those of NLD. • ISPAI is of the view that there should be minimal restriction. No licenses for Resellers. • Shri Saxena stated that same content as in the case of the NLDO Licence should be there and fragmentation should not take place. • Shri Uppal stated that investment in infrastructure in case of ILDO is much less. Therefore there should be a minimum network requirement. The Network as well as Fees should be related to cost of the Project and the size of Market.

STAKE HOLDER'S COMMENTS ON ILD PAPER

ii) In case limited competition is preferred, should the criteria for financial selection include both Entry and Annual License Fees payments?

P.K. Roychoudhury	Since limited competition is to be favoured for an initial period, no bidding is suggested. Both Entry and Annual License fees should be specified. The annual license fee should be on the basis of call minutes or packets and not on gross revenues.
Estel Communications	The competition should be unlimited.
Consumer Care Society	Yes. Both entry fee and annual license fee (as a fraction of revenue) are preferable.
T.S.Subramanian Member, Telecom Board (Retd.)	The issue is not clear. Does it mean that in a limited competition there will be bidding both for entry fee and annual license fee? In section 6 the license fee is to be a percentage of the actual revenue and this cannot be an item for bidding.
Dr. T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	Limited competition is not preferred.
IDFC	We are not in favour of limited competition.
PTC India Foundation	There should be reasonably high entry fee. Annual license fee should be based on established revenue sharing criteria for existing service providers.
ASC Enterprises	Any fee either by way of entry or annual ultimately gets on passed to the end-user. The objective of introducing competition will be lost if it is accompanied by high entry and/ or high licence fee. Preferred way is to share the prosperity by through revenue sharing. Government should, therefore, fix some reasonable entry fee (of about Rs. 50 Crores) and on top of this there should be annual licence fee based on revenue sharing.
VSNL	Yes.
AT&T India	As stated above, AT&T India strongly prefers a policy of unlimited competition for all ILD activity not requiring scarce resources. In a competitive market with an unlimited number of new entrants, the entry fee or license fee should not be high. With legally limited competition, the license itself becomes a scarce resource with an economic value, and bidding or high established payments might be appropriate (and would need to be assessed of VSNL as well as of any new entrants). Unlike the high entry fees sometimes associated with limited competition, licenses subject to unlimited competition have little inherent value because all eligible competitors

STAKE HOLDER’S COMMENTS ON ILD PAPER

	<p>should be able to obtain one.</p> <p>The proper methodology for setting the entry fee is to determine the total administrative costs for TRAI to manage the application process for an average applicant, and to defray those costs by establishing a fixed fee that is designed to recover those costs. In the United States, for example, filing a Section 214 Application with the FCC requires paying an application fee of \$815 to defray processing costs.</p> <p>Annual license fees should be established according to a different methodology. For the annual license fee, TRAI should determine its administrative costs to oversee regulation of the ILD industry, and should defray those costs among all current licensees (including VSNL) in a manner proportionate to each ILDO’s level of activity. This could be done by establishing the costs, and then charging each ILDO a small percentage of its gross telecommunications billings in India sufficient to cover the annual regulatory costs. The annual license fee should not be used to cover any expenses other than TRAI’s administrative costs.</p> <p>To the extent that TRAI intends to fund programs other than regulatory oversight through other ILDO contributions (e.g., universal service, number portability), the collection process and collection methodology for each such program should be separately identified. TRAI may assess those fees by reference to a licensee’s revenue or traffic volume for a particular type of service. This will not only ensure that payments are precisely accounted for, but it will allow TRAI to flexibly determine the extent to which ILDOs should contribute to any specific program.</p>
<p>COAI</p>	<p>Answer ii) & iii)</p> <p>As mentioned earlier, we would prefer unlimited competition in ILD operations, as there is no utilization of a scarce resource.</p> <p>The amount of Entry Fee must be set at a level that would deter non-serious players, but would still make the sector an attractive enough business proposition to attract multiple players and foreign investor interest.</p> <p>As regards the annual License Fee revenue share, COAI would like to re-iterate that this should be set at a nominal level – to cover only the costs of administration and regulation of the sector. A low level of license fee will ensure delivery of most affordable services to the end consumer. This view was also taken by the Authority in its recommendations on NLDO wherein it had stated that “the revenue share should be restricted to cover only the annual administrative costs in the management, control, enforcement and regulation of NLD licenses.”</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	COAI suggests that the revenue share as a percentage of Adjusted Gross Revenues may be fixed at a maximum level of 10% of AGR, which includes contribution to USO and levy for R&D and revenue share to the Government.
BPL Mobile	Answer ii) & iii) As mentioned earlier, we would prefer unlimited competition from the beginning itself. The amount of Entry Fee (max. Rs.100 Crores) should be so fixed as to deter non-serious players but should not be too high to inhibit competition and increase the cost of service for the customers. Annual licence fee should cover the cost of administering the licences, regulation and USO and should not be more than 10% of the adjusted gross revenue.
TATA	NA, since we recommend unlimited competition.
Surya Foundation	Competition is not recommended.
Teleglobe	Not applicable.
ABTO	ABTO feels that unlimited competition based on a reasonable Entry Fee and reasonable License Fee based on revenue sharing should be the criteria for financial selection.
Bharti	We would prefer unlimited competition only.
Morgan Stanley	Since unlimited competition is suggested there is no requirement for selection procedure.
Reliance	Since unlimited competition is suggested there is no requirement for selection procedure.
BSNL	Since unlimited competition is suggested there is no requirement for selection procedure.
ISPAI	The competition should be unlimited.
Nirwan Management Group	N/A.
Satyam	The competition should be unlimited.
Open House Kolkata	In case unlimited competition is preferred, financial selection criteria to include both entry and annual licence fee payment was suggested.
Open House Mumbai	In case unlimited competition is preferred, financial selection criteria to include both entry and annual licence fee payment was suggested.
Open House Delhi	<ul style="list-style-type: none"> Representative from AT&T stated that cost of Incentive, cost of administration only should be applicable. He cited the example of USA in similar situations.

iii) Should an Entry Fee be specified or should it be subject to bidding? What should be the optimum level of the Entry Fee if it has to be specified?

<p>P.K. Roychoudhury</p>	<p>Since limited competition is to be favoured for an initial period, no bidding is suggested. Both Entry and Annual License fees should be specified. The annual license fee should be on the basis of call minutes or packets and not on gross revenues.</p>
<p>Estel Communications</p>	<p>There should be no Entry Fee.</p> <p>The justification for making the above recommendation for No Entry Fee is as under:</p> <ul style="list-style-type: none"> • The Government has been charging entry fee and license fee only for those licenses which permit the licensee to directly access the consumer (home or office) for Voice Services. Since the ILDO licensing is proposed to be done on the basis that the ILDO provides International Voice Gateway and Carriage Services only and local access to the consumer will be provided by the Local Access Licensee for Wireline or Cellular services there will be no justification for charging an entry fee. Under this licensing system ILDO licensee would really function as an IP-II licensee where there is no requirement of an entry fee. • At best a Revenue Sharing License Fee can be levied since it is a Voice Service.
<p>Consumer Care Society</p>	<p>Bidding process above a minimum is preferred. No comments on other aspects.</p>
<p>T.S.Subramanian Member, Telecom Board (Retd.)</p>	<p>With open competition a stiff entry fee is to be fixed to keep out non-serious players. It could be on lines similar to NLDO.</p>
<p>Nitin N. Pai, Singapore</p>	<p>A simple licensing procedure involving entry fee is ideally suited for the Indian business environment.</p> <p>The following entry fee structure is proposed:</p> <p>Category 1 (International Facilities License)</p> <p>Entry fee: US\$10 million, payable in cash Security Deposit: US\$10 million, in form of bankers guarantee or bond Annual Fee: 1% of gross profit – for the first five years 1% of annual gross turnover or US\$100,000 whichever is higher</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>Category 2 (International Service License) Entry fee: US\$1 million, payable in cash Security Deposit US\$1 million, in form of bankers guarantee or bond Annual Fee: 2% of annual gross turnover or US\$10,000 whichever is higher</p>
<p>Dr. T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad</p>	<p>There should be no bidding either for the entrance fee or for any revenue share. It is just like Dhritarashtra, the Kaurava king prevailed upon by his greedy son Duryodhana, inviting righteous Pandavas to the game of dice wherein even the righteous Yudhishira gambled injudiciously and imprudently to lose his kingdom, his wealth, his brothers, himself and his wife. Gambling and auctioning is much of the cause for the ruination that the Telcos have invited upon themselves for getting the 3-G licenses in Europe and the PCs licenses in the US. Even in India, it is the bidding that has led to the near-death of the private telephone companies necessitating the risky policy of migrating companies from license fee to revenue sharing.</p> <p>The entry fee should be related to international revenue of all the companies providing service in the area for which a private telephone company is seeking a license to provide international telephony.</p>
IDFC	<p>As we are not in favour of limiting competition, the question of bidding on entry fees does not arise. Entry fee should thus be specified at a low level, just high enough to ward off non-serious players.</p>
PTC India Foundation	<p>Yes. Minimum entry fee be specified to discourage frivolous bidding.</p>
ASC Enterprises	<p>Bidding should be avoided as the bidders in their anxiety to get the licence, are likely to bid high amounts and then recover their investment by keeping the end user charges high, defeating the very purpose of the exercise in question. Bidding process has not been successful as evidenced by our own experience with BSO, CMSP or licencing of spectrum for 3G in Europe.</p> <p>An entry fee of Rs 50 crores is recommended.</p>
VSNL	<p>Entry fee may be subject to best bidding with a minimum of Rs 500 crores.</p>
AT&T India	<p>Please refer to the response provided above to question ii).</p>
COAI	<p>COAI believes that it is not necessary to prescribe technical parameters for selection criteria. All technologies meeting QOS parameters should be permitted and the flexibility of choosing a network architecture subject to regulatory requirements and QOS parameters should be allowed to the new entrants.</p>
TATA	<p>Entry Fee should be specified (assuming unlimited</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	competition). The level of Entry Fee should be such that it deters non-serious competitors and at the same time, provides a reasonable return on investment for the ILDOs.
Surya Foundation	One time entry fee should be Rs. 150 crores.
Teleglobe	No. Rather, ILD market opening should be predicated on full liberalization with the costs of entry being set as no more than: 1) reasonable license fees that correspond to the actual costs incurred by the regulatory body in administering the license and/or reasonable regulatory fees to underwrite the regulator's operational costs. These fees should be established as a percentage of revenue and should be adjusted annually to correspond with actual costs. Specifically, with regard to costs to the regulatory body to "oversee" or regulate the ILD market, VSNL should bear the lion share of the cost due to its market dominance. New entrants without market power do not require regulatory oversight designed to correct anti-competitive conduct. Finally, the recent experience of European and other governments in the 3G spectrum context should serve as a clear example of the potentially undesirable results involved in establishing license holders through the bidding process
ABTO	To attract only serious players, Entry Fee should be specified. The optimum level of Entry Fee can be in the order Rs. 100 Crores.
Bharti	<p>Entry Fee limit be set a level that would deter non-serious players.</p> <p>In case of Operators who are already have NLDO license, there should not be any additional entry fee applicable. NLDO should be a preferred ILDO and there should not be any further criteria's like, financial/experience/Networth for the existing NLDO to be a ILDO.</p> <p>Annual License fee shall be at a level which will cover the Administrative cost and USO obligations. This may be fixed at a level as applicable to NLDOs and should be inclusive of Fee, R&D Charges and USO.</p>
Morgan Stanley	Entry Fee should be specified (assuming unlimited competition). The level of Entry Fee should be such that it deters non-serious competitors and at the same time, provides a reasonable return on investment for the ILDOs.
Reliance	<p>The entry fee should be specified as has been done in other cases of BSOs and NLD services. There is no need for bidding in such type of services since bidding is the procedure only for selecting limited number of players.</p> <p>The optimum level of entry fee should be neither very high nor very low. The level of entry fee decided for the NLD at Rs 100 crores is considered sufficient in this case also to encourage only serious players.</p>
BSNL	The entry fee should be specified as has been done in

STAKE HOLDER'S COMMENTS ON ILD PAPER

	other cases of BSOs and NLD services. There is no need for bidding since bidding is the procedure only for selecting limited number of players. The level of entry fee decided for the NLDO at Rs.100 crore alongwith appropriate performance bank guarantee is considered sufficient in this case also to encourage only serious players.
ISPAI	There should be no Entry Fee.
Nirwan Management Group	In our view an entry fee of Rs.50 crores may be specified. No bidding is recommended.
Satyam	There should be no separate Entry Fee.
Open House Kolkata	None of the participants was in favour of bidding and a specified entry fee on the line of NLD service was suggested.
Open House Chennai	<ul style="list-style-type: none"> • Most of the participants suggested an entry fee of Rs.500 crores with Rs.100 crores in cash and Rs. 400 crores as bank guarantee. • One participant suggested an entry fee of Rs. 2000 crores based on the high level of Revenue collections and profit margins in the ILD sector.
Open House Mumbai	None of the participants was in favour of bidding and a specified entry fee on the line of NLD service was suggested.

STAKE HOLDER'S COMMENTS ON ILD PAPER

iv) Should the selection criteria include technical parameters? If the answer is in the affirmative, then what parameters should be included and what weightage should be given to the parameters taken into account?

P.K. Roychoudhury	Quality of Speech must be ensured through technology and standards, QOS will have to be ensured by monitoring.
Estel Communications	No technical parameters for qualification need to be prescribed. Again the example of ISP Networks is most relevant where totally new companies have succeeded in setting up excellent operations. TRAI should however mandate equipment interface specification.
Consumer Care Society	Yes, selection criterion should include technical parameters. All other points in the question are left to a competent non-partisan group of specialists.
T.S.Subramanian Member, Telecom Board (Retd.)	Technical parameters to be specified should only relate to Quality of Service (QOS) and Interconnection. It should be mandatory for the ILDO to meet these.
Dr. T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	No. Technical parameters should not figure in the selection criteria. It will be presumptuous for a licensor or TRAI to think that it knows best about all the technologies. It is for the investing company to find the best technology. The only criterion shall be that whatever technology or system is chosen, shall be compatible for inter connection to other licensed networks and operators.
IDFC	While technical standards may be set – so as to enable facilities such as dial around etc., selection criteria should not include technical parameters. Considering that an operator would have to enter into a number of agreements with other operators such as Basic Service Operators etc. before entering the business, sit can be assumed that necessary technical standards would be met.
PTC India Foundation	Technical parameters broadly on the lines of those decided for BSO and NLDO be adopted. Experience of those who provide international gateway for data communication should be suitably recognised as criteria.
ASC Enterprises	In today's world, the technical expertise can easily be acquired or services outsourced. The success of the company would depend on commercial acumen ship and this is more so in case of ILDO, which requires dealing with 200+ entities outside India. Further if a company is acquiring a licence to set up ILD operation, needless to say it will acquire necessary technical expertise to run its operations. There does not appear to be a case of putting any pre-conditions of technical experience. In fact a neutral ILD, having no intrests in NLD or Access, is preferable as it will

STAKE HOLDER'S COMMENTS ON ILD PAPER

	deal with all NLD, Access providers more fairly.
VSNL	Inclusion of the parameters covered in 5(a). As indicated in 5(a), it should be ensured that the bidder has a sound network plan for ILD service.

STAKE HOLDER'S COMMENTS ON ILD PAPER

AT&T India	<p>As discussed above in response to questions 5(a) and 3(b), TRAI should review only minimal technical information in the application process. Only minimal technical information should be required: (1) a commitment to comply with all national homologation, engineering, and interconnection standards/interfaces, and (2) a demonstration of a company's experience and expertise in the field.</p> <p>With unlimited competition, market forces will ensure technically efficient and reliable networks. TRAI should not micro-manage this process, other than to screen out applicants who raise clear concerns over their ability to establish a reliable business.</p>
BPL Mobile	Not necessary to prescribe technical parameters for selection criteria. All technologies meeting QOS parameters should be permitted and the flexibility of deciding the network architecture should be allowed to the new entrants.
TATA	No, it should not include technical parameters. The technical parameters should be left for the idols to be determined keeping in mind their best business interests.
Surya Foundation	It should be on the pattern of NLDO.
Teleglobe	No. Upon demonstrating that it has the requisite technical expertise and financial standing to provide ILD service in line with its business plan, an applicant should be granted a license.
ABTO	ABTO suggests that financial strength of the applicant, experience of partner, individual or the group should be taken into account for selection.
Bharti	All technologies meeting the "QOS" parameters shall be permitted.
Morgan Stanley	No, it should not include technical parameters. The technical parameters should be left for the ILDOs to be determined keeping in mind their best business interests. The Licensor should be indifferent to the technology used, but may be concerned about some aspects of the design which could affect QoS.
Reliance	The only technical parameter which can be considered is the experience of one of the partners/ promoters of the applicant company. There is no other technical parameters which should be prescribed since technology-neutral approach is suggested.
BSNL	Similar to that of NLDOs.

STAKE HOLDER'S COMMENTS ON ILD PAPER

ISPAI	No technical parameters for qualification need to be prescribed. Again the example of ISP Networks is most relevant where totally new companies have succeeded in setting up excellent operations. TRAI should however, mandate network to network interface specifications.
Nirwan Management Group	Similar to that of NLDO.
Satyam	No technical parameters for qualification need to be prescribed. Again the example of ISP Networks is most relevant where totally new companies have succeeded in setting up excellent operations. License, should mandate Network-Network Interface only.
Open House Kolkata	The participants wanted the selection criteria to include commitments on quality of service and other technical parameters.
Open House Mumbai	<ul style="list-style-type: none"> • The participants wanted the selection criteria to include commitments on quality of service and other technical parameters. • It should be similar to NLDOs. • Prospective players should submit their Network Plans so that their seriousness could be verified. This should be one of the considerations for selection.
Open House Delhi	<ul style="list-style-type: none"> • Shri Sehgal stated that no technical parameters should be included as the life of technology itself is only approximately 5 years. • ISPAI also expressed similar views. • Representative from VSNL desired that Network Plan from Operators need to be obtained by the Regulator. • Shri D.B. Sehgal stated that since the competition is encouraging technology neutral approach, QOS should be the only criteria and that too is already being regulated. • Shri Garg stated that non-voice data services should not over ride the voice services in the selection criteria. • Representative from AT&T stated the requirement of transparency in Interconnection but suggested confidentiality in Network Plan.

v) Should the parties acquiring VSNL equity through the disinvestment process, be permitted to obtain licenses for new ILDOs?

P.K. Roychoudhury	To avoid conflict of interest, the VSNL investors should not be given separate licenses. However, it should be noted that such a separation cannot be maintained in future as the firms will contract alliances or change hands. The future scenario will have to be controlled by the Monopolies Commission and not by the Communication Commission.
Estel Communications	Parties who have acquired VSNL equity should not be permitted to obtain a new ILDO license since that will amount to one party having two licenses which is not permitted as per the current policy of Govt. of India. The privatised VSNL should be subjected to the same terms & conditions as the newly licensed ILDO's in order to maintain Level Playing Field amongst all ILDOs.
Consumer Care Society	Yes, to avoid conflict of interest, better to prescribe a threshold.
T.S.Subramanian Member, Telecom Board (Retd.)	Parties acquiring more than 24% of VSNL equity should not be given ILDO license. Limits for such cross holding should be subject to the provisions of the Competition Law.
Nitin N. Pai, Singapore	Yes. But one corporate entity must be allowed to own only one Category 1 license at any time. Any number of Category 2 licenses may be issued to the same corporate entity.
Dr. T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	Only those companies which acquire more than 26% of the VSNL's equity should be made ineligible to seek a ILDO license. It is not unusual for investors to have shares in rival companies.
IDFC	Yes. Since we are recommending an open entry regime – there is no rationale for excluding any particular party from obtaining an ILD license.
Debashish Dutta Gupta	The parties acquiring VSNL equity through the disinvestments process should not be permitted to obtain licenses for new ILDOs.
PTC India Foundation	Yes, provided such parties have restricted stakes in the new ILDOs, as suitable percentage of equity participation.
ASC Enterprises	Holding of more than one licence will result in cartelisation and would adversely impact competition. No promoter, therefore, be allowed to have stakes in more than one ildo company. Any person or company holding more than 10% equity may be treated as promoter. This should apply to the company acquiring vsnl equity as well.
VSNL	No. It must not be permitted.
AT&T India	TRAI need not prevent the parties acquiring VSNL from

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>obtaining a new ILDO license. However, such an application would highlight the need for imposing strict dominant-carrier regulations that could detect and prevent anti-competitive dealings between VSNL and its ILDO affiliates.</p> <p>Dominant operators should be subject to close scrutiny and ex ante regulation because of their incentive and ability to delay or degrade competition. It may be necessary to impose strict accounting procedures between dominant-carrier-affiliated entities to monitor cross-subsidization of horizontally-integrated operations, to analyze potential anti-competitive pricing behavior such as predatory pricing, price squeezes, price discrimination, and other anti-competitive pricing conduct; and to determine and monitor cost-orientation and non-discriminatory treatment of interconnection services. Provided that TRAI requires by clear <i>ex ante</i> regulation that VSNL must provide all new entrants and its new ILDO affiliates with non-discriminatory prices, terms, and conditions, then TRAI should not restrict the availability of affiliate licensing.</p>
COAI	<p>As per the precedent established by the Government in the FSP & CMSP licensing, 'a promoter company cannot have stakes in more than one Bidder Company.'</p> <p>By the above definition, a company acquiring VSNL equity through the disinvestments process, should not be allowed to bid for another ILD licence. In case VSNL's control is acquired by a Joint Venture, then all partners having more than 10% stake in the Joint Venture, should not be allowed to bid for or acquire a separate ILD licence.</p>
BPL Mobile	<p>A company acquiring VSNL's control, should not be allowed to have another ILDO licence. In case the VSNL's control is acquired by a JV, all the promoter companies having more than 10% stake, should not be allowed to acquire separate licence.</p>
TATA	<p>No. The parties acquiring VSNL equity through the disinvestment process should not be permitted to obtain licenses for new ILDOs.</p>
Surya Foundation	<p>This may lead to monopoly conditions getting created and should be avoided.</p>
Teleglobe	<p>No. Parties investing in VSNL who also obtain a license to as a new ILDO would surely seek to leverage their investment and relationship with VSNL to the detriment of competitive market. The TRAI should adopt policies that are des stimulate direct investment by new ILDOs as opposed to investments in the established operator with an additional and the opportunity to restrict competition at its outset.</p>
ABTO	<p>All the parties should be allowed to bid for the ILD license.</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	However, parties acquiring VSNL Equity through the disinvestment process should not be permitted to obtain ILDO license.
Bharti	This will be against Government's own policy of not allowing stake by promoter in more than one company in the same service area. This should not be allowed at all, neither directly nor indirectly.
Morgan Stanley	No, they should not.
Reliance	There is no justification for excluding the parties which have shown inclination to acquire VSNL equity. It would be unfair if, the parties excluded do not get the VSNL equity, later on. This issue can be considered only after the VSNL equity issue is decided. At present it would not be proper to differentiate between the parties who have applied for the VSNL equity and those who have not applied.
BSNL	To avoid monopoly and to encourage competition, the parties acquiring VSNL equity through the disinvestments process should not be permitted to obtain licenses for new ILDOs.

STAKE HOLDER'S COMMENTS ON ILD PAPER

ISPAI	Parties who have acquired VSNL equity should not be permitted to obtain a new ILDO license since that will amount to one party having two licenses which is not permitted as per the current policy of the Government. The privatized VSNL should be subjected to the same Terms & Conditions as the newly licensed ILDO's in order to maintain Level Playing Field amongst all ILDO's.
Nirwan Management Group	To avoid monopoly and more competition, it should not be permitted.
Satyam	The privatised VSNL should be subjected to the same terms & conditions as the newly licensed ILDOs in order to maintain Level Playing Field amongst all ILDOs. Provided the level playing field is maintained, parties acquiring VSNL may be allowed to obtain licenses for new ILDOs.
Open House Kolkata	Some of the parties mentioned that there could be a number of parties interested in the disinvestment process but finally only one of them may get selected. As such no one should be barred for applying for the ILD licence. Many of the participants mentioned that as the bidding has not yet taken place, all eligible applicants should be allowed to participate. One of the participants expressed fear about the possibility of anti competition practice. One of the representatives mentioned that in case of cellular licence, even the financial institution had picked up the equity from the market/original companies.
Open House Chennai	Some participants suggested that by not permitting parties acquiring VSNL equity could be anti competitive and would also be discouraging the disinvestments process. One participant mentioned that at this stage, it is not clear who would finally get the management control of VSNL at a later stage. Even financial institutes could also buy the equity and later sell to any other party.
Open House Mumbai	Many of the participants felt that since the process of disinvestments is in the initial stages and completion date is also not known, no comments could be offered at this stage
Open House Delhi	<ul style="list-style-type: none"> • VSNL – Licenses for new ILDOs should not be allowed if a company acquires a majority of equity through disinvestment. • Shri Satya Pal stated that if the person acquiring the VSNL stakes also gets the ILDO licence then it will be another monopoly situation, therefore they should not be allowed. • Bharti and AT&T were of the view that there should be no restriction. Regulation is more important. • There was also a view expressed that since it is not certain which of the processes i.e. opening of ILDO or VSNL privatisation, precedes the other, there should not be any restriction.

STAKE HOLDER'S COMMENTS ON ILD PAPER

--	--

IV. STRUCTURE OF THE LICENCE FEES

- 1. GENERAL CONSIDERATIONS.**
- 2. FACTORS IMPORTANT FOR CONSIDERATION OF THE LICENSE FEE STRUCTURE RELATING TO ILD LICENSES.**
- 3. ESTIMATING GROSS REVENUES FOR LICWENSE FEE.**

STAKE HOLDER'S COMMENTS ON ILD PAPER

i) What factors should be taken into account while determining the License Fee for ILD operations?

P.K. Roychoudhury	Volume of voice traffic in call minutes, gross number of standard packets transmitted and other revenues should be considered.
Estel Communications	Gross revenue minus all deduction on account of Pass Through Revenue (including interconnect charges) should form the basis for calculation of recurring revenue share license fee.
Consumer Care Society	<p>Apart from a one time specified entry fee, the annual license fee could consist of following components:</p> <ul style="list-style-type: none"> • Fixed annual fee, may be different from entry fee. <p>Fixed proportion of traffic revenue earned, i.e. after payment of clearly defined transit charges. This has to be very clearly defined and schematically represented to cover all cases of traffic handled to avoid disputes later. Further, TRAI has to have the necessary authority to check and audit the transit charges to ensure they are the same paid by all for same facilities and that there is no disparity in these rates between one and the other operators.</p>
T.S.Subramanian Member, Telecom Board (Retd.)	The factors to be taken into deciding the annual licenser fee should be same as for NLD except that in respect of ILDO the outgoing and incoming call revenues should be treated separately.
Nitin N. Pai, Singapore	<p>The government should not use the license fees improve its revenue position. Telecommunications must be seen as a national priority sector. While the license fees should be put in place to ensure only serious players enter the market, they should not be exorbitant as to become a entry barrier.</p> <p>The ILD operator is subject to India's corporate & income tax framework – in that sense the government gains revenues if the players create wealth.</p> <p>In my proposal I have proposed that for the first five years, the facilities based Category 1 operator be liable to pay 1% of gross profits as license fees. This will provide it a sufficient incentive to invest in infrastructure. However if the Category 1 operator fails to meet its roll out obligations, this incentive must be withdrawn. Roll out obligations must be reviewed annually.</p>
Dr. T.H. Chowdary, Dir., Center for Telecom Management & Study Hyderabad	There should be no license fee. License fee is a cost to the company and is totally unrelated to the business of providing ILDO. What is cost to the companies will be factored into prices for consumers. An entry fee and the contribution to the universal access/service fund only should be imposed.

STAKE HOLDER'S COMMENTS ON ILD PAPER

IDFC	License fees should be just sufficient to cover administrative and regulatory expenses, and should not contain any element of scarcity rent. They should not be used by the Government as a source of general budgetary revenue.
Debashish Dutta Gupta	<p>Licence should be technology and media neutral. Sufficiently high entry fee to ensure participation of the serious players only.. Licence fee may be in the form of revenue share as a percentage of net income from incoming and outgoing traffic (%age revenue share may be at par with NLDOs)</p> <p>ILDs like operators, should also contribute towards USO fund.</p> <p>BSNL, should be permitted to become ILDO without any entry fee.</p>
PTC India Foundation	All the three factors mentioned in para 6.1 of the Consultation paper.
ASC Enterprises	<p>Government 's prime motivator should be the welfare of the people and help promotion of trade. Both are best served by having lower end-user charges.</p> <p>Government should link the licence fee with the revenue as has been done in case of other services and in line with NTP-99. This approach does not burden the operator in initial years, when he is required to fund the infrastructure cost but at the same time allows government to get its share as the traffic builds up.</p>
Sprint Communications Company	i)– iii) Sprint has previously expressed its views on the matter of license fees. It believes that such fees should be kept low and should never exceed the direct cost to the government of regulation. Any license fee scheme should also be simple and easy to administer lest the ILD operator and the government become embroiled in arcane disputes over how revenues should be counted, for example. Such disputes will create substantial work for highly paid lawyers and regulatory specialists but will do little to bring more, cheaper, and better telecommunications services to the Indian public.
VSNL	Volume of traffic (in paid minutes) should be the factor with minimum specified amount.
AT&T India	Please refer to the response provided above to question III(ii)
COAI	<p>Answer I) & ii)</p> <p>As mentioned above, the annual license fee levy for the ILD operators should be based on adjusted gross revenues, which exclude the pass thru revenues of the ILD operator.</p> <p>We have also suggested that this revenue share percentage should not be more than 10% of AGR – inclusive of contribution to the USO Fund, levy for R&D and the revenue</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	share to the Government.
BPL Mobile	<p>Answer i) & ii)</p> <p>The aggregate size of the market by end of 3rd year, the expected market share available to the new entrants and the expected number of players should be considered while deciding the entry fee. Alternately, the entry fee could be 1.0 - 1.5% of the VSNL's revenue in 2000-2001.</p> <p>Following factors may be taken into account for determining licence fee:</p> <ol style="list-style-type: none"> 1. Administration cost of licensing and regulation 2. USO Obligation <p>Annual licence fee (including USO contribution) should not exceed 10% of the adjusted gross revenue.</p>
TATA	<p>Key Factors include costs of regulation, contribution for USO fund. However, it should be ensured that, such a rate is not too high as that would hamper the commercial survival of the ILDOs.</p>
Surya Foundation	<p>The licence fee should be on the pattern of NLDO. It should be based on the gross revenue of the licensee.</p>
Teleglobe	<p>The License Fee should correspond with the actual cost incurred by TRAI to administer the licenses and not be set as an arbitrary amount designed primarily to provide funding to the state treasury. TRAI stated in its Consultation Paper on the Introduction of Competition in the Domestic Long Distance Communications that "principles of proportionality are applied whereby higher license fees are sought from entities entailing high regulations, viz. entities, mostly based on revenues." Importantly, any annual license fee should be based on a licensee's revenues and may vary on an annual basis depending on the actual expenses incurred by the regulator to administer the license.</p>
ABTO	<p>It should be based on the expenses likely to be incurred for regulating, administering and enforcement of the licenses.</p>
Bharti	<p>License Fee should be based on the concept of recovery of Administrative costs, USO and R&D Charges. This should not be more than what is applicable to NLDO and all pass through revenues shall be excluded from the definition of Adjusted Gross Revenue.</p>
Morgan Stanley	<p>Key Factors include Return on Investment for ILDOs, costs of regulation, USO</p>
Reliance	<p>The annual licence fee should be fixed in the form of revenue share. The annual revenue share as licence fee should not be taken as a source of revenue for the Government. It should be sufficient to meet the administrative costs and contributions towards USO.</p>
BSNL	<p>The factors utilised in case of NLDO licenses also hold good for ILDO licenses in so far as encouragement to build up infrastructure in earliest possible time.</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

ISPAI	Gross revenue minus all deduction on account of Pass Through Revenue (including interconnect charges) should form the basis for calculation of recurring revenue share license fee.
Nirwan Management Group	The licence fee should be similar to that of NLDO. It should be based on the gross revenue of the licensee.
Satyam	License fees should derive from the revenue sharing principle. Gross revenue minus all deduction on account of Pass Through Revenue (including interconnect charges) should form the basis for calculation of recurring revenue share license fee.
Open House Kolkata	The participants generally felt that TRAI is competent enough to determine the Licence Fee structure.
Open House Mumbai	<ul style="list-style-type: none"> • VSNL suggested that it should be based on volume of traffic. They mentioned that this is the most reliable measurable quantity. • Other participants suggested that Licence Fee shall be based on a percentage of revenue. • One participant suggested that percentage of revenue to be recovered towards the USO Fund should be based on consideration of the facts like level of profit margins, lower level of investment requirements and higher revenues.
Open House Delhi	<ul style="list-style-type: none"> • VSNL representative was of the view that Volume of traffic based on millions of minutes is easy to measure, therefore the licence fee should be on the basis of volume of traffic say @ Rs.0.50p/min. • Shri Uppal stated that it should be on per minute basis and also should have a Linkage with USO funding. • AT&T was of the view that the fees should cover the Administrative and Other costs including those of Number Portability and Carrier Selection. • A Consumer was of the view that it should be on the basis of percentage of revenue as per the NLD policy. • Shri Khanna stated that it should be on the same basis as in Basic, NLD, Cellular, etc., and all services could be treated at par. • Shri Uppal stated that size of market , level of profitability to be taken into account while fixing the fees.

STAKE HOLDER'S COMMENTS ON ILD PAPER

ii) How should License Fee be estimated? For example, should it be a certain percentage of the ILDO's revenue? Whether this percentage should be the same as was fixed for NLD Services?

P.K. Roychoudhury	I would like to give more thought to this, however, my initial views are that voice traffic can be based on Rs.X per call minute, the value of X being different for outgoing and incoming traffic. There is a likelihood that costs of international traffic will become substantially independent of distance and an average value for X can be determined. Similarly data traffic can be charged on a kilo packet basis, possibly with a speed related formula. For other income such as miscellaneous services, leased circuits etc. the percentage of gross revenue can continue. I also think that a differential USO liability should be applied.
Estel Communications	License fee should be a percentage of revenue and should be the same as for an NLDO
Consumer Care Society	No comments, may be bidders roll out plans will give some idea.
T.S.Subramanian Member, Telecom Board (Retd.)	The percentage should be same as for NLDO.
Nitin N. Pai, Singapore	See my recommendation in Question 5 c
Dr. T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	If at all any license fee is prescribed then it should be a percentage of the revenue. It should be 0.01 % as in Europe.
IDFC	License fee may be in the form of a percentage of revenue, but as mentioned above, it should be limited by the extent necessary to cover administrative and regulatory expenses. This may or may not be the same percentage as that fixed for NLD services.
PTC India Foundation	The license fee be estimated on the established revenue sharing criteria, specified for NLDOs.
ASC Enterprises	Licence fee for ILD can be fixed on lines with NLD as a percentage of revenue. The revenue should be the amount left with NLDO after payment of Interconnect fee with Indian operators, adjustments arising out of Traffic settlements with distant administrations. The percentage could be same as that of NLDO.
VSNL	The license fee should be estimated on the basis of volume of traffic (paid minutes) with minimum specified

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>amount (e.g. Re. 0.50 per minute with a minimum of Rs. 100 Crore per anum).</p> <p>We strongly do not recommend to go for revenue sharing to ensure transparency.</p>
AT&T India	<p>Please refer to the response provided above to question III(ii).</p>
TATA	<p>License Fee for ILDO should be on the basis of certain percentage of the ILDO's revenue. A suitable percentage can be fixed keeping in mind the profitability of the ILD operations. Adequate share should be considered for USO obligations also.</p>
Surya Foundation	<p>Yes, a figure of 10% is suggested.</p>
Teleglobe	<p>The License Fee can be applied to all ILDO license holders on a pro rata basis to cover administrative costs of maintaining the licenses incurred by TRAI. ILDOs with the most revenue should bear the greatest proportionate burden. ILDOs with lesser revenue should pay a lesser percentage of the License Fees.</p>
ABTO	<p>ABTO feels that License Fee should be fixed as a percentage of the Adjusted Gross Revenue (AGR) as in the case of all other licenses.</p>
Morgan Stanley	<p>License Fee for ILDO should be on the basis of certain percentage of the ILDO's revenue. A suitable percentage can be fixed keeping in mind the profitability of the ILD operations. Adequate share should be considered for USO obligations also. Interconnects should be excluded from Gross Revenues for calculating Net Revenues.</p>
Reliance	<p>The licence fee has to be in the form of revenue share in line with the fee structure for all the other services. The revenue share should be 2% to meet the administrative costs and 3% to meet the USO obligations. Thus the total annual revenue share should not exceed 5% of the revenue. It need not be the same as for the NLD, since all the services have different character and different market perception.</p>
BSNL	<p>The license fee has to be in the form revenue share in line with the fee structure for all other services. The percentage of revenue share for license fee may be the same as was fixed for NLD services. Since margins will be higher and services are utilised by relatively affluent classes, a higher percentage of the revenue share may be considered as a contribution towards USO Fund for development of telecom services in uneconomic areas.</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

ISPAI	License fee should be a percentage of revenue and should not exceed the 'Administrative Cost' of the Regulator plus the 'USO'.
Nirwan Management Group	Yes.
Satyam	License fee should be a percentage of revenue. This may be on par with the percentage fixed for NLD services.
Open House Kolkata	The participants wanted the concept of licence fee as certain percentage of revenue of ILDOs. Some of them felt that it should be identical to the NLD service. Whereas, another set of participants felt that TRAI could work out on its own and could suggest any other certain percentage of the ILD revenue so long as adequate coverage for the USO and other administrative cost is covered alongwith the adequate internal rate of return
Open House Chennai	<ul style="list-style-type: none"> • One participant suggested Licence Fee should be based on a percentage of revenue earned by the operator. • Representative from BSNL suggested that 5 % of revenue should be the minimum to cater to the US Fund. The License fee shall be based on the revenue earned by the operator. • VSNL suggested fee based on the volume of traffic handled by the operator as a basis. (for example Rs.25/- per minute per circuit) • One participant suggested a fee to cover the administrative costs and the USO funding.
Open House Mumbai	<ul style="list-style-type: none"> • The participants wanted the concept of licence fee as certain percentage of revenue of ILDOs. Some of them felt that it should be identical to the NLD service. • Another set of participants felt that TRAI could work out on its own and could suggest a certain percentage of the ILD revenue with adequate coverage for the USO and other administrative cost is covered along with the adequate internal rate of return.

STAKE HOLDER'S COMMENTS ON ILD PAPER

iii) How should the revenue on incoming calls be determined and included in gross revenue of the ILDO for the purpose of arriving at the license fee payable by the Operator?

P.K. Roychoudhury	To safeguard national revenues, the license fee for incoming calls may be determined on the basis of paid minutes irrespective of accounting and settlement rates that would vary from operator to operator.
Estel Communications	Since the total gross revenue of the ILDO licensee is covered under Question 6 (a), it will automatically include any revenue earned by the ILDO on incoming calls.
Consumer Care Society	As given in i) above.
T.S.Subramanian Member, Telecom Board (Retd.)	The best way to deal with incoming calls is to impose a fixed license fee for each unit of incoming call minutes from each country. This could a percentage of the tariff for outgoing calls to the same country.
Nitin N. Pai, Singapore	There is no need to separate the incoming and outgoing call revenues for the purpose of gross revenue calculation. In a fully liberalised open competitive environment, such a differentiation becomes unnecessary.
Dr. T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	This is a very complicated question. Firstly, who is going to decide and impose the proportionate return traffic? And this may go on varying. Not only that foreign correspondents may not be eager to return any traffic. Then there will be only outgoing traffic. It is better and simpler to relate every levy only to the outgoing traffic.
IDFC	To the extent that the Authority is concerned that an operator may enter into bilateral arrangements with a remote international operator – full disclosure of any such agreements should be stressed upon. Till the time that such disclosure is not enforceable, benchmark standards may be set for determining revenue from internal calls. The Authority's concerns on this issue appear to stem from the fact that at present incoming traffic to India is much higher than outgoing traffic. However, once the tariff rebalancing exercise is completed, and competition in the sector is introduced, this skewed traffic pattern may change, though it could remain as a result of income differentials between domestic and international callers.
PTC India Foundation	Based on international practices specified by ITU.
ASC Enterprises	In International accounting the settlement rates are based on bilaterally agreed (notional) rates and this is de-linked from end-user charges (The end user charges can

	<p>very significantly at other ends of telecom link due various factors like cost of delivery domestically, level of competition, paying capacity of people etc). The carrier collecting the call charges from the user (generally calling party) makes payment to the administration(s) of countries whose networks are used in the call set. The charges are calculated by multiplying the total minutes with the settlement rate.</p> <p>Settlement rates are agreed bilaterally and modified periodically to bring them in line with cost of provisioning. CCITT has framed specific guidelines on the methodology and the factors that should be taken into account while arriving cost based Accounting rates</p> <p>For incoming traffic, money received from foreign countries by way of settlement should be treated as income to ILDO.</p> <p>TRAI must consider following issues, which are extremely important in International Telecommunications but have not been addressed in the consultation paper:</p> <ul style="list-style-type: none"> a) Whether all Indian ILDO's have uniform Settlement rates in a particular relation or each ILDO can negotiate its own rates. b) Should ILDOs be allowed to have differing settlement rates in outgoing and incoming direction of a particular relation like can ILDO have X as settlement rate in India-country ABC and Y as settlement rate in Country ABC-India direction? c) If all ILDOs are to have uniform rates, who should negotiate these rates? d) Should TRAI set benchmark settlement rates, as was done By FCC? <p>Our Comments on above issues are as given below:</p> <p>1. Allowing ILDOs to negotiate their own settlement rates will not be in national Interest because of following considerations:</p> <ul style="list-style-type: none"> a) The Fragmented Indian operators will be handicapped in negotiating advantageous rates when pitted against single body on the other side of the table. b) In its bid to capture more incoming traffic some operator may agree on non-commensurate rates. Distant carriers will exploit this to force other carriers to follow the same rates, which will spoil the business case of all operators and would harm the industry in the long term. b) Fixing of non-renumerative settlement rates will impact, on foreign exchange flow for the country. c) ILDOs will have the ability of retaining part of their earnings in foreign accounts, which will be difficult to trace. This will have an adverse impact of Government's licence fee, which is linked to ILDO's revenue in revenue sharing arrangement. <p>In view of above our recommendation is that TRAI</p>
--	--

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>prescribe the generally prevailing practice world over (including USA, UK, Japan, Canada etc) viz.:</p> <ul style="list-style-type: none"> a) All carriers (ILDs) follow uniform Settlement rates in a given relation. b) Accounting rates in outgoing and incoming direction should be split in 50:50 or for a higher percentage in favour of Indian carrier. c) The dominant carrier negotiates the rates. The delegation to have a member from second largest carrier on that relation. d) The regulatory authority may prescribe general directions to carriers falling within their jurisdiction, if it so decides
<p>VSNL</p>	<p>No need in view of ii) above.</p>
<p>AT&T India</p>	<p>Incoming calls do not have revenue associated with them. Only the operator at the foreign end receives revenue from those calls because it bills the party originating the call. The traditional accounting-rate system provides for payments between carriers for traffic imbalances. If the traffic is balanced, no payments are made. Although incoming traffic to India is greater than outgoing traffic today, that will change as competition develops and drives down the prices of international calls, thereby stimulating increased outgoing traffic.</p> <p>License fees should be based solely on revenues received from billing customers in India. This would include charges for calls provided via callback and other reverse-call mechanisms (to the extent they survive the advent of competition). Incoming calls are billed in foreign jurisdictions and those revenues are assessed various fees by the regulatory authorities there. The TRAI should not double-dip and apply its own fees on top, any more than it should support attempts by foreign regulators to assess additional fees on calls made by Indian customers.</p>
<p>COAI</p>	<p>At the outset, we would like to state that any scheme to compute the actual revenues of the ILD operator must be easy to understand and simple to administer.</p> <p>Having said that, COAI nevertheless appreciates the Regulator's concern about the possibility of call revenues being retained abroad which would minimize the payment to the Indian ILD operator resulting in lower license fee payables.</p> <p>To address this concern it is suggested that the ILD operator be required to submit / register his settlement</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>agreements with different carriers / countries with the TRAI.</p> <p>The above agreement will clearly specify the accounting rate settled between the two carriers and based on this and the available information of the number of minutes of usage, there would consequently be no scope for ambiguity in the revenues from incoming calls and the license fee payable by the ILD operator.</p>
BPL Mobile	<p>Total out-going and incoming paid minutes of VSNL for the year 2000-2001, CAGR of 15% and the average revenue of Rs. 6-8 per minute could be considered for determining the total size of the market after 3 years. Total incoming paid minutes of individual ILDOs could be audited from the CDRs. ILDOs could also be asked to submit/register the bi- lateral interconnect/settlement agreements with international carriers/countries.</p>
TATA	<p>The incoming settlement rate of the top 2-3 operators (in terms of traffic) for every route may be treated as the rate for all operators for the purpose of calculating Gross Revenues from incoming calls.</p>
Surya Foundation	<p>From the audited accounts of the licensee. The call data be provided by the NLDO's switches.</p>
Teleglobe	<p>The License fee should be based on Total Indian Service Revenue (TISR) and, especially in the case of VSNL, should include incoming calls that generate revenue for termination of such calls in India.</p>
ABTO	<p>ABTO suggests that revenues on incoming and outgoing calls should together determine the Adjusted Gross Revenue. Incoming Revenue should be based on the Settlement Rates agreed upon by the ILD operator with corresponding Carrier abroad. It need not be the same for all operators, neither can there be a standard incoming settlement rate for all ILD operators.</p>
Bharti	<p>Any scheme to compute the actual revenues of the ILD operator must be easy to understand and simple to administer.</p> <p>It is suggested that the ILD operator be required to submit / register his settlement agreements with different carriers / countries with the TRAI.</p> <p>The above agreement will clearly specify the accounting rate settled between the two carriers and based on this and the available information of the number of minutes of</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	usage, there would consequently be no scope for ambiguity in the revenues from incoming calls and the license fee payable by the ILD operator.
Morgan Stanley	The incoming settlement rate of the top 2-3 operators (in terms of traffic) for every route may be treated as the rate for all operators for the purpose of calculating Gross Revenues from incoming calls.
Reliance	Revenues on incoming and outgoing calls should be determined together for inclusion in the annual gross revenue. Incoming revenues should be calculated based on the Settlement rates for different operators. These rates should be filed with the TRAI by all the operators and be the basis for all the computations.
BSNL	Revenue on incoming calls may be determined based upon the call data record provided by the ILDO switches, settlement rates and inter operator revenue sharing arrangements which should be filed with the TRAI.

STAKE HOLDER'S COMMENTS ON ILD PAPER

ISPAI	Since the total gross revenue of the ILDO licensee is covered under Question 6 (a), it will automatically include any revenue earned by the ILDO on incoming calls.
Nirwan Management Group	From the audited accounts of the licensee. The call data can also be provided by the NLDOs switches.
Satyam	Since the total gross revenue of the ILDO licensee is covered under Question IV I), it will automatically include any revenue earned by the ILDO on incoming calls.
Open House Kolkata	Some of the participants wanted the revenue corresponding to the incoming traffic to be brought to the Indian Banks and physically money transfer should take place to India. Some of the participants mentioned that for ILD service, International settlement rates are applicable corresponding settlement agreement involved.
Open House Chennai	One participant indicated that we should not suspect the ILDOs. Settlement rates should be transparent and openly declared by the ILDOs.
Open House Mumbai	<ul style="list-style-type: none"> • Some of the participants wanted the revenue corresponding to the incoming traffic to be clearly monitored, as the incoming traffic is approximately 4.5 times that of outgoing traffic. • VSNL suggested that millions of minute of traffic (outgoing and incoming) is a better option.
Open House Delhi	<ul style="list-style-type: none"> • Shri Satyapal stated that all Interconnect Agreements along with settlement rates should be filed with TRAI. • AT&T representative stated that Tariffs are coming down due to Voice over IP, and competition due to resellers. Since the settlement is based on the difference in traffic, if the tariff on incoming calls is also taken into account to calculate the revenue then there could be double taxation. • Shri Saxena stated that the imbalance in traffic is due to the purchasing power of the countries exchanging traffic. The incoming traffic to India from USA is therefore high and it will remain so due to the difference in purchasing power.

STAKE HOLDER'S COMMENTS ON ILD PAPER

V. TECHNICAL

- 1. TERMS IN USE**
- 2. ISSUES RELATING TO VOIP**
- 3. IMPACT OF VOIP ON THE PUBLIC TELECOMMUNICATION OPERATOR**
- 4. INTERCONNECTION ISSUES**

STAKE HOLDER'S COMMENTS ON ILD PAPER

i) Should ILD Operator be permitted to deploy VOIP network instead of PSTN for carriage of International voice traffic?

P.K. Roychoudhury	Yes.
Estel Communications	ILDO should be permitted to deploy VOIP Network. Already Govt. of India has adopted a policy of licenses being technologically neutral as with NLDO and Wireline Services. The same formula should apply to ILDO.
Consumer Care Society	For i) to vii) – It appears that VOIP is a new technology yet to mature, stabilise and get implemented universally. Hence, fee it is preferable to wait before introducing it on our public network.
T.S.Subramanian Member, Telecom Board (Retd.)	For i), ii), iii) & v) – The ILDO should be permitted to offer international telephony and allied services by any combination of circuit switched network, IP based Packet switched network or public Internet. The tariff will be based on the QOS offered. The first two can have some guaranteed QOS and can be regulated. The last cannot give any guarantee and need not be regulated.
Nitin N. Pai, Singapore	Yes.
Dr. T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	Yes. The ILD operator should be permitted to deploy VOIP networks instead of PSTN for carriage of international not only voice but every type of traffic.
IDFC	Yes, as we are in favour of a technology neutral approach, ILD operators should be given this choice.
PTC India Foundation	Yes, considering the technical trends, it should be facilitated.
ASC Enterprises	VOIP is a technology, which deploys Packet Technology for transmission of signals cost effectively. It increases circuit utilisations, allows servicing all needs of voice, data, video on a single platform. Use of VOIP between point-to-point links does not pose any Quality or charging issues. Carriers, including VSNL, had been using Digital Channel Multiplex Equipment (DCME) based of packet technology even before Internet Service was introduced in India. With this technology they could increase utilisation of costly international circuits by 500%. There is no reason why ILDO should be barred from using efficient technology The problems crops up when voice is mounted on public Internet platform since there are no quality parameters embedded in present internet protocol, hopefully new

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>protocols will have parameters to address quality issues. Presently motivator for using voice on Internet is because of cost considerations. The international calls are terribly costly while voice on internet comes so cheap and it is not surprising that many people do use Internet Telephony, in spite of it being illegal in India, and of poor quality. With competition in ILD, NLD, it is hoped, end-user charges will drop substantially which will reduce the gap between circuit switched and IP based calls and hence reduce the incentive to use Internet Telephony.</p> <p>Further it is futile to fight technology through regulations; Technology has to be fought with technology and through market forces (pricing).</p> <p>It is, therefore, recommended that ILD may be permitted to offer any type of Technology including VOIP</p>
--	---

STAKE HOLDER'S COMMENTS ON ILD PAPER

<p>Sprint Communications Company</p>	<p>Answers i) – vii) Sprint perceives a tendency on the part of TRAI to regulate on the basis of technology employed when it asks if an ILD Operator should be “permitted to employ a VOIP network instead of PSTN for carriage of international voice traffic.” To repeat, TRAI should not try to create an artificial dichotomy between VOIP and the public switched telephone network (PSTN) when substantial parts of the PSTN are moving towards use of IP. Such a requirement is an invitation to limit the use of the most advanced technology.</p> <p>Sprint also believes that it will be unnecessary to regulate quality of service for ILD operators who choose to employ IP technology. Even under current technology, voice over IP can be highly successful from a quality of service standpoint if the IP network is properly sized and operated. As TRAI is no doubt aware, the quality of service of VOIP is an issue because IP cannot distinguish between voice and video packets, which require real time transmission, and other kinds of packets, such as those for E-mail, which can tolerate delay.</p> <p>Sprint ensures quality of service over its Sprintlink IP network by avoiding packet congestion. As soon as a particular link on the Sprintlink network is 50% utilized, Sprint adds additional capacity. If they care about quality, other operators can do the same. If the new ILD operators hope to compete successfully with VSNL, however, they will be forced to provide quality at least as good as VSNL’s for the same or less money, otherwise no one will use them.</p> <p>It is true, as TRAI suggests, that some ILD operators may choose a competitive strategy of delivering a low quality service using VOIP at a low price. But the new ILD operator could adopt the same strategy without using VOIP. Thus, Sprint believes that TRAI should not try to regulate the quality of such offerings. If a market exists for such lower quality offerings, the worst that will happen is that the Indian public will have an additional choice it did not have before. If the low price, low quality offering is rejected by the public, the ILD operator must change its strategy or fail. Sprint urges TRAI to trust the competitive market in these circumstances.</p> <p>Finally, Sprint believes that there should be an easy method for the customer to select its ILD operator for international voice telephony. The exact method chosen (e.g. carrier pre-selection, dial around), however, should depend on a careful evaluation of the current capabilities of the Indian telephone network. Some switches may be able to accommodate pre-selection while others may not. The same may apply to dial-around. It may turn out that a combination of dial-around and pre-selection is necessary.</p> <p>Sprint knows from its U.S. experience that the modification of switches on a country-wide basis to</p>
--------------------------------------	---

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>implement new dialing patterns is a major, time-consuming and expensive undertaking. As such, Sprint urges TRAI to undertake additional study before recommending either dial-around or pre-selection.</p> <p>Also worthy of additional study are the new billing arrangements that will have to be made. It is in all likelihood the originating local carrier's switch that captures all of the data that will be necessary for the ILD operator who bills its customer for voice telephone calls. Thus, TRAI must find a way for the new ILD operator to obtain access to this billing data on a fair and reasonable basis until the new operator can implement its own billing system.</p> <p>Sprint knows from its experience with the Brazilian privatization that these are difficult and complex technical issues that deserve and require further analysis.</p>
VSNL	Yes. Answer to ii) may also be seen.
AT&T India	TRAI should allow market forces to influence whether an ILDO chooses to develop a VoIP network, a traditional circuit-switched network, or both, for carriage of international voice traffic. The introduction of new technology will foster competition in the provision of international voice origination and termination services. In turn, the competition to provide origination, termination, and transport of international voice services will reduce costs, increase investment in new facilities and technologies, and increase the availability of affordable high-quality services to consumers.
COAI	Yes, managed VOIP network should be permitted subject to compliance with the QOS standards prescribed by the Regulator.
BPL Mobile	Yes, managed VOIP network should be permitted subject to compliance of the QOS standards.
TATA	The kind of network to be deployed for carriage of international traffic should be left to the choice of the operator. However, QoS can be specified.
Surya Foundation	ILDO may be permitted to deploy any type of network including VOIP in its area of operation.
Teleglobe	New ILD Operators should be permitted, but not compelled, to deploy IP networks for carriage of international voice traffic and other new IP-based services. The existing ILD PSTN network provider should likewise be allowed to deploy an IP network. However, the existing ILD PSTN network provider should be constrained from leveraging its market dominance in the PSTN, either directly or through affiliates, to frustrate new entrants' ability to establish IP networks and IP-based services.

STAKE HOLDER'S COMMENTS ON ILD PAPER

	Public and private network providers are deploying IP networks globally thereby establishing the next generation communications platforms for competitively provided IP services. Otherwise restricting ILD Operators to establishing PSTN networks would retard the introduction of emerging IP services to Indian end users and consumers.
ABTO	Yes.
Global Crossing	Answer i) & ii) The Consultation Paper asks whether or not an ILD operator should be permitted to use a Voice-over-IP ("VOIP") network instead of the PSTN for the carriage of international voice traffic, and if so, how should the government regulate the Quality of Services ("QOS") on VOIP links. Global Crossing believes that this is an appropriate area in which to implement the principle of technological neutrality. In regulating ILD services, India should not favour the use of a particular type of technology. Further, in a competitive environment, there is no need for the government to mandate certain QOS standards for carriers. The marketplace will determine what technology and QOS standards are acceptable. Both the PSTN and VOIP networks have their advantages and disadvantages. If QOS is a concern to some customers, and they believe a VOIP network will not meet their needs, then they will choose a carrier offering a higher standard of service. On the other hand, if a carrier can offer services cheaper over a VOIP network, and its customers are satisfied that the QOS is sufficient for their needs, then that carrier should not be restricted from offering the service.
Bharti	Answer i) to v) "VOIP" shall be treated as a separate Regulatory item and it shall not be coupled with ILDO.
Morgan Stanley	The kind of network to be deployed for carriage of international traffic should be left to the choice of the operator. However, QoS can be specified.
Reliance	ILDO should be free to use any internationally approved technology to provide world class services. The only condition is that the technology used should be such that the rights of the existing BSOs and NLDOs should not be by-passed.
BSNL	ILDOs should be free to use any internationally standard technology including VOIP to provide world-class services to the consumers at competitive prices. However, VOIP may only be permitted subsequent to assurance of

STAKE HOLDER'S COMMENTS ON ILD PAPER

	prescribed and announced Q.O.S. parameters.
ISPAI	ILDO should be permitted to deploy VOIP Network. Already Govt. of India has adopted a policy of licenses being technologically neutral as with NLDO and Wireline Services. The same 'Guiding Principle' should apply to ILDOs.
Nirwan Management Group	VOIP is already a permissible technology, Internet telephony, e.g. voice over public internet is prohibited. ILD operator may be permitted to deploy any type of network including VOIP in his area of operation.
Satyam	Already Govt. of India has adopted a policy of licenses being technologically neutral as with NLDO and Wireline Services. The same guiding principle must apply to ILDO. ILDO should be permitted to deploy VOIP Network.
Consumer – CDOT	Yes.
Open House <u>Kolkata</u>	The participants suggested a technology neutral approach. They wanted adherence of Quality of Service prescribed by TRAI including details with respect to the National standards on Net work to Network interface. Some of the participants mentioned that deployment of VOIP should also take into consideration, the likely impact on the existing ILD operator (VSNL).
Open House Mumbai	The participants suggested a technology neutral approach. They wanted adherence of Quality of Service prescribed by TRAI including details with respect to the National standards on Net work to Network interface.
Open House Delhi	<ul style="list-style-type: none"> • Shri D.B. Sehgal stated that VOIP network be regulated with QOS Standards. Therefore there was no need to impose any restriction on VOIP so long as QOS ensured. • One Consumer stated that technology neutral approach be envisaged with QOS being most important. Cheaper tariff could be charged by the Operator providing IP based Voice telephony. • Shri Uppal was of the view that as long as Customers has the right information on the type of Network, even VOIP could be permitted. • AT&T was of the view that VOIP be permitted with QOS standards. Market forces will decide on the sustenance of VOIP based networks. • Shri R.k. Roychoudhary sated that QOS is not a problem.

STAKE HOLDER'S COMMENTS ON ILD PAPER

ii) In case the answer to the previous question is in the affirmative, then how to regulate the Quality of Service on VOIP links? Should a degraded performance on ILD link be acceptable with a reduced tariff?

P.K. Roychoudhury	No. The quality of speech must be specified and maintained. Quality products find it difficult to compete with degraded products in poorer countries.
Estel Communications	The quality of service on VOIP is now will accepted all over the world and considered better than the quality of service of Cellular Telephony and is fast approaching parity with PSTN. VSNL is already reported to be using VOIP technology for routing some of its calls. In fact what is not up to the standard is Internet Telephony and not VOIP.
Nitin N. Pai, Singapore	There is no need for TRAI to ensure the Quality of Service for VOIP. In a fully competitive market there are a number of players who will compete on quality, price etc. The consumer is the best decision-maker; if the quality of service is unacceptable, the consumer will switch to an operator who provides better quality.
Dr.T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	You need not regulate the quality of service. When there are competitors and the customers have choice, they will determine as to who is providing, an acceptable quality of service by continuing or withdrawing their patronage. Leave it to the subscriber whether he should accept a degraded performer. For example, travelers by rail; and by air choose what the quality of service they want. In case of rail travel, they have air-conditioned 1 st class to simple 2 nd un-air-conditioned mail or passenger trains. In case of airlines, they have a choice between 1 st class, club class and economy class. Similarly, the telephony users may chose whatever quality of service they want by paying different prices.
IDFC	Yes, a degraded performance with a reduced tariff is essentially a different price-quality combination available to consumers, who would decide whether or not to accept such services. This therefore may be accepted, provided that consumers are made wholly aware of the deficiencies in the quality of service and have a choice to opt for operators providing better service. However, the Authority may choose to frame minimum service standards.
PTC India Foundation	VOIP is an emerging technology, it is premature to list out the Quality of Service of VOIP links.
ASC Enterprises	TRAI should prescribe QOS standards for standard services. For non-standard services Operator may be asked to notify the public of the deficiencies of the service and if customer still prefers to use those deficient services because of lower tariff, it should a matter between the operator and his customer.
VSNL	No compromise on QoS should be accepted. However,

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>we cannot stop the march of technology, and therefore, VoIP may be introduced at appropriate time. We recommend that there should be two different services, Premium service and VoIP service. The tariff for VoIP may be lower.</p>
AT&T India	<p>TRAI should not attempt to regulate Quality of Service ("QoS") on VoIP links. AT&T India suggests that TRAI will best achieve its objectives of high-quality performance and effective competition by relying primarily on market-based incentives rather than a framework of minimum standards and prescriptions. New market entrants are accountable to their retail and wholesale customers, as they must compete to win and retain those customers with a proposition that satisfies a targeted balance of service quality and price demands.</p> <p>Quality of service is critical to customers, and an efficient network is one of the most powerful market differentiators for operators lacking an installed customer base. Because operators subject to effective competition are motivated to maintain high quality standards, any proposed framework of QoS indicators would impose an unnecessary regulatory burden.</p> <p>Furthermore, establishment of static QoS standards may limit the flexibility of operators to develop precisely targeted service packages that meet the quality and price demands of a wide variety of customer requests, ranging on a broad spectrum from mission-critical high-quality voice services to budget-oriented lower-grade voice services. TRAI should allow the market to determine which VoIP services will be accepted by the consumer.</p>
COAI	<p>As mentioned above, VOIP should be allowed, but subject to compliance with clearly laid down QOS parameters. There should be no question of permitting a degraded / lower quality of service for VOIP networks.</p>
BPL Mobile	<p>Yes, managed VOIP network should be permitted subject to compliance of the QOS standards. Degraded services should not be acceptable.</p>
TATA	<p>Irrespective of the technology used by the ILDO a certain level of QoS should be specified, however, such QoS should be linked to the end price the customer pays. This is intended to give choice to the customer the kind of services (hence QoS) which he wants and the kind of price he wants to pay for it.</p>
Surya Foundation	<p>This should be left to the market forces.</p>
Teleglobe	<p>VOIP is but one IP based service that has emerged as a</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>competitively provided service. VOIP, as well as Internet, IP video and e-fax services have entered the market outside of traditional regulated services. As such, VOIP QoS issues have been treated as a commercial matter between ILDOs and their customers. Moreover, existing standards for protocols, such as MPLS, provide QoS options for consumers for VOIP and other IP-based services. Outside of India, the tariff/price is already established through negotiation between service providers and end users and need not be dictated by regulation. If the QoS is degraded, customers will pay a lower price for the service. Conversely, if the QoS is high, customers will pay a higher price for a guaranteed level of service.</p>
ABTO	<p>VOIP should meet the QOS requirements as specified by various international bodies like IETF, ITU etc and by TEC, TRAI in India.</p>
Morgan Stanley	<p>Irrespective of the technology used by the ILDO a certain level of QoS should be specified, however, such QoS should be linked to the end price the customer pays. This is intended to give choice to the customer the kind of services (hence QoS) which he wants and the kind of price he wants to pay for it.</p>
Reliance	<p>VOIP links must meet the QOS requirements of circuit switched lines.</p>
BSNL	<p>The prescribed quality of Service parameters must be met by the ILDO irrespective of the technology deployed by him in his network. A degraded performance on ILD Link with reduced tariff should not be acceptable to protect the interest of the consumers as there is no way to measure the level of degradability.</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

ISPAI	The 'Quality of Service' on VOIP is now well accepted all over the World and considered better than the Quality of Service of Cellular Telephony and is fast approaching parity with PSTN. VSNL is already reported to be using VOIP technology for routing some of its Calls. In-fact what is not up to the standard is Internet Telephony and not VOIP. There should be no difference in tariff based on technology deployed (Circuit or IP) by the ILDOs.
Nirwan Management Group	Let this be left to the market forces. Quality of service on VOIP is now comparable to circuit switched.
Satyam	The quality of service on VOIP is now well accepted all over the world and considered better than the quality of service of Cellular Telephony and is fast approaching parity with PSTN. Industry may evolve basic standards to ensure levels of customer service.
Consumer – <u>CDOT</u>	No need to lay down different standards for VOIP. The PSTN/ISDN – VOIP – PSTN/ISDN connection should satisfy the same Grade of Service (QOS) and voice quality criteria as the present PSTN/ISDN connection. No, a degraded performance on ILD links should not be acceptable with reduced tariff?
Open House <u>Kolkata</u>	In case VOIP is permitted, general consensus was in favour of TRAI Regulation on Quality of Service on VOIP links. On the question of degraded performance of ILD links not meeting the QOS/delay parameters though with reduced tariffs, the participants wanted the consumers to be informed about it. Some of the participants mentioned that there could be two different codes for the ILD Networks with adequate Quality of Service and the other one with no commitment on QOS but with reduced cost.
Open House Chennai	<ul style="list-style-type: none"> • Some participants suggested that the technology should be left to the operator. • One participant was of the view that the use of technology be left to the operator, but the PSTN connectivity should be linked with the QOS. • One participant suggested that we should specify two QOS objectives, the Low and the High. • Some participants were of the view, that VOIP also should be with a specified QOS and ITU Standards should be followed.
Open House Mumbai	<ul style="list-style-type: none"> • One view was that there should not be two QOS standards. Same standards should apply irrespective of technology selected. • Some other participants on the other hand suggested two different QOS standards could be there

STAKE HOLDER'S COMMENTS ON ILD PAPER

iii) Whether existing Regulatory frameworks will be adequate for IP based Networks? What QOS standards should be applicable until ITU standards become fully mature?

P.K. Roychoudhury	National standards will have to be established. These can be updated as and when ITU standards are available.
Estel Communications	The existing regulatory framework is adequate for IP based networks. In any case the customer has the choice to migrate from using one ILDO to the other and nobody can be better judge of quality than the customer so long as he has the freedom of choice. As and when ITU standards become fully matured, the regulator can review the matter once again.
Nitin N. Pai, Singapore	Again, technology neutrality implies the regulatory framework applies to IP based networks as well. Unlike in the past, the ITU may not remain the sole standards-body in the world. Due to convergence, many de facto market standards exist, and will continue to emerge. I propose a market and industry driven approach to standardisation.
Dr.T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	Forget about laying down of quality standards. This is old mind set. In the era of full competition and Internet, the acceptable quality of service will be chosen by the user in relation to the price.
IDFC	Until standards are set for regulating QOS on VOIP networks, consumers should be educated about the quality deficiencies on VOIP networks. In most cases, consumers will have a choice between VOIP and Public Switched Telephone Networks (PSTN), and it is only in those geographical areas where this choice is limited, that regulating QOS becomes important.
PTC India Foundation	We should wait for ITU standards to mature.
ASC Enterprises	Existing Internet protocols, to our knowledge do not support QOS standards but new protocols to support QOS are being evolved. TRAI should, therefore, wait till ITU standards get evolved and get matured.
VSNL	No. The regulatory frameworks for IP based network have not been laid down as yet. Without standardising the minimum QoS, the service may not be licensed for provision.
AT&T India	Please refer to the response provided above to question V(ii).

STAKE HOLDER'S COMMENTS ON ILD PAPER

COAI	<p>Some changes in Regulatory framework may be necessary for IP based network. The 3 important parameters to be laid down for QOS could be:</p> <p>Grade of Service : 0.005 Mean opinion score (MOS) : >4 Packet Loss : <1%</p>
BPL Mobile	<p>Some changes in Regulatory framework may be necessary for IP based network. The 3 important parameters which could be laid down for QOS are:</p> <p>Grade of Service - 0.005 Mean opinion score - >4 (MOS) Packet Loss - <1%</p>
TATA	<p>We do not believe that the existing Regulatory frameworks will be adequate for IP based Networks. We further believe that TRAI should be given the responsibility for determining the QoS applicable for ILDOs till the time ITU standards become mandatory.</p>
Surya Foundation	<p>No regulation is suggested in this area and it should be left to market forces. The complaints from the customers for non delivered promised QOS, however, would need to be addressed.</p>
Teleglobe	<p>Existing regulatory frameworks were designed for traditional monopoly provided PSTN services. Since IP based networks have developed in a competitive market, traditional regulatory frameworks should not be applied to IP based networks. Standards for IP based networks have developed as a result of collaboration between private entities and network operators. Today, IP based networks provide interoperable, seamless service provision on a global basis.</p>
ABTO	<p>ABTO feels that present regulatory framework is not adequate for IP based networks. However, regulation has to evolve with evolving technology and it is an accepted fact that regulatory frameworks can never keep ahead of technology, but only be followers. As such, it is important to evolve a framework that fits the IP technology revolution rather than the other way around.</p>
Morgan Stanley	<p>We do not believe that the existing Regulatory frameworks will be adequate for IP based Networks. We further believe that TRAI should be given the responsibility for determining the QoS applicable for ILDOs till the time ITU standards become mandatory.</p>
Reliance	<p>The present regulatory framework is not adequate for IP based networks. However, the regulation has to evolve with evolving technology. It is an accepted fact that that regulatory frameworks can never keep ahead of</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	technology, but only be the followers. As such it is important to evolve a framework that fits the IP technology revolution rather than the other way round.
BSNL	The regulatory framework should only ensure adherence by the ILDO to the prescribed Quality of Service parameters. However, if a separate license is issued for ILDO as is being proposed, the technical complications for its implementation, interconnection and revenue sharing arrangements, equal ease of access , Numbering, Routing, addressing, inter-operability and conflict with the rights and obligations of BSOs and NLDOs are some of the issues which cannot be addressed within the existing regulatory framework.
ISPAI	The existing Regulatory Framework is adequate for IP based Networks. In any case the Customer has the choice to migrate from using one ILDO to another, and nobody can be better judge of quality than the Customer, so long as he has the freedom of choice. As and when ITU standards become fully matured, the Regulator can review the matter once again.
Nirwan Management Group	No regulation is desirable in this area. Let it again be left to market forces. TRAI may only address to the complaints from the customers for non-delivery of promised QOS.
Satyam	The existing regulatory framework is adequate for IP based networks. In any case, the customer has the choice to migrate from using one ILDO to the other and nobody can be better judge of quality than the customer so long as he has the freedom of choice. As and when ITU standards mature, the regulator can review the matter once again.
Consumer – <u>CDOT</u>	It will be as suitable as it is today for circuit switched network.
Open House <u>Kolkata</u>	Participants felt that TRAI could take adequate decision about the regulatory framework for Data based Net works.

STAKE HOLDER'S COMMENTS ON ILD PAPER

iv) Whether VOIP based Networks need special considerations on issues like Numbering, Routing, addressing, inter-operability and QOS?

P.K. Roychoudhury	Since this is at the central part of the network, the ISDN numbering scheme of E.164 should suffice. Routing plans and interconnectivity with the PSTN and PSPDN will have to be revised. New QOS parameters will have to be established.
Estel Communications	No special consideration is involved on IP Networks in respect of issues like numbering, routing, addressing, inter-operability and QOS.
T.S.Subramanian Member, Telecom Board (Retd.)	IP based packet switched networks with guaranteed QOS (like Finland), do require considerations on issues like numbering, routing addressing, interconnection and QOS.
Nitin N. Pai, Singapore	No.
Dr.T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	Who in the licensing or regulatory body knows all the issues involved in numbering, routing, addressing, interoperability and quality of service? Please leave it to the network operators. They will all come together and resolve the issues about numbering. The TRAI should only be an umpire when the negotiating parties cannot come to a conclusion.
IDFC	To the best of our understanding, VOIP networks would not need special considerations on these issues, except perhaps QOS.
PTC India Foundation	Yes.
ASC Enterprises	As we understand the actual delivery of calls to PSTN numbers is via VOIP Gateways and there is no special need or requirement for special numbering scheme.
VSNL	VOIP based networks need special considerations on issues of inter-operability and QoS.
AT&T India	Please refer to the response provided above to question 7(b). TRAI should allow the market to determine appropriate solutions to technical matters.
COAI	The numbering plan will have to be same as per the PSTN network. However, routing & addressing should be separate so as to be in accordance with the IP based Networks. As regards Interoperability and QOS standards, these should be the same as for PSTN networks.

STAKE HOLDER'S COMMENTS ON ILD PAPER

BPL Mobile	Numbering plan will have to be same as per the PSTN network. Routing & addressing should be separate so as to be in accordance with the IP based Networks. Interoperability and QOS standards could be of the same order as for PSTN networks.
TATA	Numbering: Let a suitable Numbering scheme be defined by TRAI Routing, addressing, inter-operability: let it be the choice of the ILDOs QoS: Let TRAI determine suitable QoS parameters.
Surya Foundation	No.
Teleglobe	Internet standards (numbering, routing, addressing, inter-operability and QoS) have been established through longstanding cooperative efforts of private industry (IETF, ICANN etc.). Although the VOIP network will have to accommodate the POTS network for seamless service provisioning, no special considerations are required.
ABTO	ABTO feels that this does not need any special consideration.
Morgan Stanley	Numbering: Let a suitable Numbering scheme be defined by TRAI Routing, addressing, inter-operability: let it be the choice of the ILDOs QoS: Let TRAI determine suitable QoS parameters.
Reliance	Yes they do need special consideration but still these issues can be resolved and QOS should be clearly defined and latency rates should also be prescribed. ITU –T guidelines on VOIP network can be used as a guiding principle.
BSNL	These issues will definitely need to be considered.

STAKE HOLDER'S COMMENTS ON ILD PAPER

ISPAI	No special consideration is involved on IP Networks in respect of issues like Numbering, Routing, Addressing, Inter-operability and QOS.
Nirwan Management Group	No.
Satyam	No special consideration is involved on IP Networks in respect of issues like numbering, routing, addressing, inter-operability and QOS.
Consumer – CDOT	No.
Open House <u>Kolkata</u>	There were no comments from the participants on technical issues like Numbering, Routing, addressing in the VOIP based Networks.
Open House Mumbai	There were no comments from the participants on technical issues like Numbering, Routing, addressing in the VOIP based Networks.
Open House Delhi	<ul style="list-style-type: none"> • Shri Garg was of the view that we must wait for the ITU standard to mature. TEC standards should be prepared and QOS as comparable to that of PSTN be imposed. • Satyam Info representative was of the view that customer should be the final judge. • Shri D.B. Sehgal indicated that QOS requirements should be similar to that of PSTN. There can be taken care by interfaces. Separate Access Code could be required, but the Numbering Plan should be the same. • Shri P.C. Gupta stated that once ITU standards are ready, the issue could get decided.

STAKE HOLDER'S COMMENTS ON ILD PAPER

v) Can ILD operator be allowed to engineer two networks, one based on PSTN with QOS guarantees and other based on VOIP with no QOS guarantee? How to regulate QOS and Interconnection in such a scenario?

P.K. Roychoudhury	The ILDO can have a common network or separate network in accordance with his business plan.
Estel Communications	Engineering two parallel networks based on Legacy system and IP network would be wasteful capital expenditure and the Government should not force such wasteful expenditure which will indeed become a big negative for any foreign investment in the sector.
Nitin N. Pai, Singapore	Yes. In my proposal the ILD license mandates compulsory interconnection. As long as this is achieved, there is no need to look at how many different networks or technologies an operator employs. For QOS see my answer to the previous question.
Dr.T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	Leave the choice to the ILD operator. Whether they will have two networks, one like the PSTN and the other with VOIP. The quality of interconnection will be negotiated by the parties.
IDFC	Yes, an ILD operator could be allowed to engineer two such networks. If the Authority is unable to regulate QOS on the VOIP Network, it could restrict itself to regulating QOS on the PSTN and exercise forbearance on QOS on the VOIP network.
PTC India Foundation	Yes. Precise regulation for VOIP networks is not possible at this stage. Consumer choice will be the best judge.
ASC Enterprises	For reasons given in comment to Para 7a, The operator should be allowed to set up PSTN and VOIP networks as he deems fit. For standard services he must meet QOS parameters prescribed by TRAI. The QOS should be on end-to-end basis. In case of VOIP he may be mandated to inform the public of the deficiencies.
VSNL	Yes. QoS for each category should be specified. The Regulator should monitor and measure the QoS parameters periodically and by random test checks.
AT&T India	Please refer to the responses provided above to questions V(i) (ii).

STAKE HOLDER'S COMMENTS ON ILD PAPER

COAI	Two separate networks - one PSTN and one for IP architecture may be allowed. However, in either case the ILD operator must meet the minimum QOS standards for both networks.
BPL Mobile	Two separate networks – one PSTN and one for IP architecture may be allowed. However, minimum QOS standards should be met in either case.
TATA	Let the choice of network be left with the ILDOs subject to the certain minimum QoS to be determined by TRAI.
Surya Foundation	ILDO may be permitted to engineer networks based on PST VOIP. The ceiling for tariff would have to be fixed.
Teleglobe	Presumably the question applies to VSNL that, unlike new entrants, is in a position to engineer both a PSTN and an IP network. As stated above, all ILDOs, including VSNL, should be allowed to construct an IP network with QoS guarantees being determined as a commercial matter between the ILDO and its customer. However, unlike new entrant ILDOs, VSNL should be sharply restricted from utilizing its market position and its control over PSTN facilities to frustrate new entrants' efforts to access necessary facilities on competitive terms in order to establish competing networks and services. For their part, new entrant ILDOs will likely construct networks that are IP enabled but capable of providing both types of services, to some degree. Maintaining the regulatory distinction between traditional PSTN services and value added services would stimulate continued investment in the emerging IP services market and would allow QoS guarantee and interconnection issues to continue to be effectively determined on a commercial basis.
ABTO	Yes. ABTO feels that as long as a specified QOS is maintained and the ILD operator provides the customers a good grade of service, mix of technologies should be permitted. The choice of technology and network should be left to the ILDOs subject to meeting QOS requirements as specified by TRAI.
Morgan Stanley	The ILDO should be left to decide which networks they wish to deploy. QoS may be monitored on both kinds of networks, but the market should also be the judge on the same, especially since a lower QoS may be acceptable at certain lower price points.
Reliance	As long as specific QOS is maintained and ILD operator provides the customer a good grade of service, mix of

STAKE HOLDER'S COMMENTS ON ILD PAPER

	technologies should be permitted. However, the same operator can not run two parallel services at two different rates. The service offering has to be one and the same at the same rates. The operator should have the freedom to decide about the mix of technology.
BSNL	The same operator should not be permitted to run two parallel services at two different rates with different quality of service. To protect the interest of the consumers, it is must that the service offering is done by setting up networks that comply to standard QOS only.
ISPAI	Engineering two parallel networks based on Legacy system and IP Network would be wasteful capital expenditure and the Government should not force such wasteful expenditure, which will indeed become a big negative point for any Foreign Investment in this Sector.
Nirwan Management Group	Yes, he may be permitted. The TRAI may only fix the ceiling of tariff.
Satyam	Engineering two parallel networks based on Legacy system and IP network would be wasteful capital expenditure and the Government should not force such wasteful expenditure which will indeed become a big deterrent for any investor – domestic as well as foreign.
Consumer – CDOT	No. Though there can be two networks but the QOS should remain the same.
Open House <u>Kolkata</u>	The general consensus was that ILD Service Provider should be allowed the flexibility. Some of the participants felt that ILD operator could be permitted to go in for two types of Networks i.e. one with guaranteed Quality of Service and another optional one which would not guarantee any Quality of Service.
Open House Mumbai	There should not be two networks with different QOS

STAKE HOLDER'S COMMENTS ON ILD PAPER

vi) Should there be Carrier Selection of ILDO? If yet, what should be the modality of ILD access i.e. pre-selection or dial around or both?

P.K. Roychoudhury	Please see I ii) / I iii). At the stage when the ILDO has a POP at the Primary (State Level), carrier selection of the ILDO is necessary and can be easily provided. Before that stage carrier selection of the ILDO is not recommended.
Estel Communications	Carriers selection of ILDO by consumer should be both by pre-selection or dial around – let the customer decide rather than the licensor. However Access Providers and NLDOs shall be permitted a default ILDO on their choice for these customers who don't make their owns choice.
T.S.Subramanian Member, Telecom Board (Retd.)	There should carrier selection of ILDO. Initially it can be by pre-selection and later also by dialling when all Access providers and NLDOs have equipped themselves with necessary hardware/software.
Nitin N. Pai, Singapore	The most convenient and simple method is “dial around” or Dynamic Carrier Selection. It is recommended that TRAI ensure that the Dynamic Carrier Selection methodology is applied.
Dr.T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	Customer should be given a choice as to whether they have call by call selection or pre-selection. There could be one-time charge by the operator who is providing the access for each type of carrier selection, whenever a change in choice is availed of.
IDFC	Yes, carrier selection should be permitted, through both pre-selection and dial-around.
PTC India Foundation	Yes. Both.
ASC Enterprises	In India BSNL/ MTNL are going to dominate Basic services Providers at least for few years. Cellular operators are obliged to route their ISD calls via BSNL/MTNL. No ILD operator can make be commercially viable if these entities decide not to give their traffic to him. In the circumstances, If ILDO selection is left with NLDO OR Access Providers, competition in ILDO will not mean much. Dominant NLD/Access providers in collusion with a selected ILDO can, at least theoretically, form a cartel, defeat competition and keep the End -User charges high. The selection of ILD should, therefore, be in the hands of end user and best way to do this by assigning carrier code to each ILDO and embedding the carrier code in the numbering scheme.

STAKE HOLDER'S COMMENTS ON ILD PAPER

<p>VSNL</p>	<p>Yes. The modality should be both pre-selection as well as dial around.</p>
<p>AT&T India</p>	<p>Customers should be able to access all domestic or international long-distance carriers on an equivalent, non-discriminatory basis. Such choice may be provisioned by either of two methods: the institution of pre-selection of a carrier for all calls (with dial-around capability), or via call-by-call selection utilizing non-discriminatory, randomly-assigned carrier access codes. In either case, the number of digits dialed and the dialing protocol by customers of the incumbent and the new entrants should be identical. (Pre-selection has the advantage of not increasing the number of digits that need to be dialed and not requiring customers to learn new dialing procedures.)</p> <p>Discriminatory access, whether through the use of non-parity dialing (dialing of extra digits to access new long-distance carriers, but not required to access the incumbent), or the assignment of prejudicial carrier access codes (traditional dialing of a specific code such as "00" for access assigned to an existing carrier) gives existing carriers advantages which emerging competitors will find difficult to overcome.</p> <p>Critical to the process for implementing alternatives such as pre-selection is to ensure that the costs incurred are recovered in a competitively neutral way. All ILDOs (including VSNL) should contribute to cost recovery because even customers who stay with VSNL benefit from the availability of pre-selection. The ability to easily switch ILDOs increases competition which drives down prices, including the prices VSNL charges its customers. Knowing that customers can easily select a competitor, VSNL will be incented to offer its customers better prices and services. That may also cause customers who left VSNL to come back, a return that will be facilitated by the existence of pre-selection. The cost-recovery process should also be carefully monitored to ensure that over-recovery does not occur.</p>
<p>COAI</p>	<p>As mentioned in 3 (c) earlier, we would like to reiterate that the Access Provider should be allowed to directly connect with the ILD operator.</p> <p>Call by call selection should be the ultimate objective in opening up of ILD. COAI believes that this must be accomplished within a prescribed time frame of say three years.</p> <p>Initially however, carrier pre-selection could be provided</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	by the Access Providers to their customers.
BPL Mobile	Carrier pre selection should be the ultimate objective, which should be achieved within three years. Initially, carrier selection could be based on dial around method.
TATA	The Carrier Selection of ILDO should be on the basis of both the options so that the customer has the choice.
Surya Foundation	No.
Teleglobe	<p>ILD access should be provided by both pre-selection and dial around modalities. Adoption of both modalities ensures that on the one hand, new entrant ILDOs will be placed on near equal footing with the incumbent provider for ILD subscribers and, on the other hand, will be able to offer their services to non-subscribers. Dial around services will increase competition in the ILD market and facilitate the introduction of diverse ILD service packages and pricing to the benefit of Indian consumers.</p> <p>TRAI should also adopt a balloting process to ensure the rapid introduction of competition in the ILD sector. Balloting allows consumers the opportunity to select a competitive provider of international services and supports the public policy goal of providing equal access for carriers and consumers alike. Additionally, the TRAI could structure a balloting process whereby consumers could be assigned to a new competitive ILD provider by selection or as a result of their failure to respond to a ballot. Such procedures, if overseen by the regulator, can ensure the actual introduction of competition in a previously closed market, can check the incumbent's ability to frustrate competitor's initial entry and can provide competitors with an opportunity to compete and grow in the newly opened market.</p>
ABTO	ABTO feels Carrier selection for ILDO is vital to ensure customers have a choice. As in the case of NLDO, carrier selection should be available in both formats and preferably pre-selection should be in place before competition is introduced as there is sufficient time for networks to prepare and also the fact that this is being introduced for NLDOs.
Bharti	We recommend that the choice to choose a Network by the customer shall be left at the NLDO level. National and International services would be offered by NLDO as a package. Call by call selection at the NLDO level should be the ultimate objective which shall be accomplished in a time bound manner. However, till such happens carrier

STAKE HOLDER'S COMMENTS ON ILD PAPER

	pre-selection could be provided and the carrier selection should not be by default selection.
Morgan Stanley	Preferably both, with the limitation of technology.
Reliance	Carrier selection for the ILDO is essential to give the customer a choice. As in the case of NLDO, carrier selection should be available in both formats and preferably pre-selection should be in place before competition is introduced as there is sufficient time for the networks to prepare and also the fact that this is being introduced for NLDOs.
BSNL	Carrier selection is essential to give customer a choice. As in the case of NLDO, carrier selection may be introduced as a dial around option to start with. Pre-selection may be introduced later when the telephone exchanges are upgraded to support this facility. However, choice to customer by either technique can be implemented only through selection of NLDO. No separate carrier selection code need be dialled for ILDO. This implies that NLDOs and ILDOs will operate in conjunction for competing with such other grouping(s) of NLDOs and ILDOs. The only practical possibility appeared to be to make onus fall on NLDO to make available to its customers/acces providers, the best possible deal for ILDO services in terms of tariff and Q.O.S. , at any given time.

STAKE HOLDER'S COMMENTS ON ILD PAPER

ISPAI	Carriers selection of ILDO by consumer should be both by pre-selection or dial around – let the Customer decide rather than the Licensor. However Access Providers and NLDO's shall be permitted a default ILDO on their choice for those Customers who don't make their own choice.
Nirwan Management Group	No.
Satyam	Carrier selection of ILDO by consumer should be both by pre-selection or dial around – let the customer decide rather than the licensor.
Consumer – <u>CDOT</u>	Yes. Same mechanism as that for NLD as far as the user is concerned. ILDO can be accessed directly from BSO or via an NLDO.
Open House <u>Kolkata</u>	All the participants wanted the choice of carrier selection for ILD operator. Both the options of Dynamic Carrier Selection and Pre-selection were desired by the participants.
Open House Chennai	<ul style="list-style-type: none"> • Participants were of the view that the subscribers to be given the choice of selecting the Carrier. • Some participants suggested that both the options of pre-selection and dial around should be available to the subscribers. • One participant was of the opinion that the subscriber should have the option of carrier selection for both the NLD as well as ILD. • There was also an opinion expressed that too much choice could be a costly proposition and there is a need to reduce the interconnection complexity.
Open House Mumbai	<ul style="list-style-type: none"> • One participant was of the opinion that the subscriber should have the option of carrier selection for both the NLD as well as ILD and for that two different CSC should be allotted. • One participant suggested that both the options of pre-selection and dial around should be available to the subscribers.
Open House Delhi	<ul style="list-style-type: none"> • Most of the representatives were of the view that dial around should be available initially and pre-selection could be provided at a later stage. • Shri Garg stated that dial around is cheaper and faster. • Shri Dua from ABTO suggested that both facilities should be available. • Shri Sehgal stated that cost of the implementation increases if pre-selection is to be provided as all the existing switches would need upgradation. • Representative from Bharti indicated that both the choices should be available.

STAKE HOLDER'S COMMENTS ON ILD PAPER

vii) What should be the technical arrangement and responsibilities for Billing for ILD calls? Where should the call data records (CDR) be generated for example, should these be generated by Routers in addition to the Switches?

P.K. Roychoudhury	Since origin is not a criteria for billing, the ILDO should generate all billing data and send it to the Access Provider for collection. CLI is essential for this purpose. Where CLI is not available, the billing responsibility shall shift to the AP.
Estel Communications	The CDR should be generated at ILDO. Circuit switches as also VOIP routers have capacity to generate CDR's.
T.S.Subramanian Member, Telecom Board (Retd.)	The consolidated customer bill should go from the access provider, either a BSO or an ISP. The call data records should be generated by the switches or routers or by both depending on as the growth and operation of VoIP.
Dr.T.H. Chowdary, Dir., Center for Telecom Management & Studies, Hyderabad	The arrangement for billing should be left to the operator. If he cannot bill, he cannot get revenue. The risk is his. The costs and rewards are his. The call data record should be generated by the person who is carrying the call. The ILDO can generate the records provided the calling number is forwarded to him. Leave it to the ILDO to negotiate the generation of call record for subscribers who are with the calling number passed on to him by the access and local service provider.
IDFC	We have no technical comments on this issue. However, the call data records need to be generated at a level that would permit the Authority to determine operator revenue in a reliable manner and also enforce arms-length pricing where necessary.
PTC India Foundation	As per international practices.
ASC Enterprises	Access providers should remain the billing agencies to the end-user from following consideration: <ul style="list-style-type: none"> a) ILDO do not own end customers. To start direct billing, they would need to have contractual relationship with all the users. b) The cost of billing and collection will be very high and it gets on passed to end-user in one form or the other. c) The administration of bills by ILDO would be messy. Imagine 5 ILDO sending 5 separate bills to a customer, on top of this he gets a bill from cellular operator, another one from basic operator. d) In case of Internet Telephony, things will be different. The ILDO would become bandwidth provider and will charge for the bandwidth. The service provider will have its own arrangement for: <ul style="list-style-type: none"> i) Collection of money of charges from end-user

STAKE HOLDER'S COMMENTS ON ILD PAPER

	<p>ii)Payment to Internet Gateway provider (it could be ILDO or may be someone in foreign country) for terminating the call to the called party.</p>
VSNL	<p>Billing data/CDR for ILD billing should be the responsibility of ILDO. Invoicing/ billing to the customer should be the responsibility of first access provider (BSO or Cellular).</p>
AT&T India	<p>Technical arrangements for billing should be left to the operators to resolve as they negotiate commercial agreements with each other. The pricing structure chosen by a particular operator plays a significant role in determining the appropriate solution. For example, unlimited calling for a flat fee of Rs.20,000 per month requires very little in the way of technical arrangements. The only concern of the regulator should be that the billing is accurate.</p> <p>It is likely that most customer billing for ILD calls will be done by the Access Providers, because they have well-established direct relationships with users. Access Providers and ILDOs should be free to negotiate billing arrangements that are mutually beneficial and properly reflect underlying costs, including accounting for bad debts.</p>
COAI	<p>Billing should be done by the Access Provider. Further, the Access Provider should be allowed to retain 5-10% of pass through revenues as charges towards collection cost and bad debts besides the normal cost based access charges.</p> <p>However, CDRs should also be maintained by the ILD Operator to avoid any disputes and also to settle with the international carriers.</p>
BPL Mobile	<p>Billing should be done by the Access Provider. CDRs could be maintained both by the Access Provider and the ILDO to avoid any disputes. Access Provider should be allowed 5-10% charges towards collection cost and bad debts besides the normal cost based access charges.</p>
TATA	<p>The responsibility for billing ILD calls should be with the Access Providers (BSOs, CMSPs). These Access Providers will in turn tie up with ILDOs for setting bills.</p>
Surya Foundation	<p>The call data records (CDR) should be generated at the TA NLDO as well as at the Gateways of ILDOs.</p>
Teleglobe	<p>The ILDO should have the option of either offering billing services itself or arranging for another BSO operator to provide such services to its customer. The ILDO can, in either scenario, satisfy obligations set forth by the TRAI concerning specificity of charges, verification and control.</p>

STAKE HOLDER'S COMMENTS ON ILD PAPER

	Should the ILDO obtain billing services through another operator it can, through the course of its commercial dealings with the operator, ensure that the operator satisfies any billing requirements of the TRAI.
ABTO	Basic Service Providers should be responsible for billing the end customer and CDRs should be generated in routers in addition to switches.
Bharti	Billing should be done by the Access provider. A mutually agreed system shall be worked out between various operators to reconcile the billing data and charges.
Morgan Stanley	The responsibility for billing ILD calls should be with the Access Providers (BSOs, CMSPs). These Access Providers will in turn tie up with ILDOs for setting bills.
Reliance	Preferably access providers should be responsible for billing the end customer and CDRs should be generated in routers in addition to switches. However, if ILDO wishes to bill directly he should be free to do so.
BSNL	Preferably access providers should be responsible for billing the end customer and CDRs should be generated in routers in addition to switches. The access providers should, however, be compensated for the cost of billing and bad debts. Alternatively, billing may be done by the NLDOs.
ISPAI	The CDR should be generated at ILDO. Circuit Switches as also VOIP Routers have capacity to generate CDR's.
Nirwan Management Group	The call data records (CDR) shall be generated at the TAXs of the NLDO as well as at the Gateways of ILDOs. No bill is required for pre-paid service. However, for post paid local access service providers should raise the bill.
Satyam	The CDR should be generated at ILDO. Circuit switches as also VOIP routers have capacity to generate CDRs.

STAKE HOLDER'S COMMENTS ON ILD PAPER

Consumer – CDOT	Same as that for NLD calls. Routers are inconsequential. The point of reference should be the signalling gateway.
Open House <u>Kolkata</u>	BSNL representative mentioned that CDRs should be generated in the Circuit Switch through which the calls originated, VOIP gateway switch could also be utilised for economising on transmission media requirements. Some of the participants mentioned that the issues like RBI guidelines, Arbitrage, Inter-carrier settlements are complex issues and need adequate consideration by the Regulator.
Open House Delhi	<ul style="list-style-type: none"> • ISPAI representative stated that VOIP Routers also are capable of billing. He also suggested that for the cost of billing and collection, Access Providers need to be compensated. • AT&T was of the view that Commercial arrangement need to be made for billing and accuracy be of paramount importance. • There was almost unanimity among all participants that customers belong to the Access Providers and therefore billing and collection has to be made by the APs. Collection and Billing charges could be negotiated by Aps with ILDOs.