Consultation Paper

on

Resale

in

International Private Leased Circuits (IPLC) Segment

New Delhi
December 22, 2006
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Preface

The Telecom Regulatory Authority of India (TRAI) had submitted its recommendation to the licensor, on the issues pertaining to measures to promote competition in International Private Leased Circuits (IPLC) in India on 16.12.2005. TRAI has received response from the licensor wherein TRAI’s recommendations pertaining to (a) Introduction of Resale in IPLC segments and (b) Access to essential facilities including landing facilities for submarine cables at cable landing stations has been accepted by the licensor. Licensor has sought TRAI’s recommendations on detailed terms & conditions for introduction of Resale in IPLC market.

International experience has been that non-facility based operators do not entail any additional cost to the economy but provide additional benefits in terms of production innovations and prices customized to end users need. Non-facility based competition does not adversely affect facilities build out. Rather it is a positive impact on the facility based operators due to expansion of market facilitated by resellers. Although resellers corner some of the retail revenues, their presence in the long term results in growth and maturity of the market, which translates into higher revenues for facility based operators.

With a view to bringing out all the related aspects of the issue and to provide a suitable platform for discussion, this consultation paper focuses on the approach, modalities and detailed terms & conditions in respect of introduction of resale in IPLC segment. Any expression of opinion in the document is read to be in the context of analysis of the option / data and is not necessarily a view of the Authority.

Since Recommendations to the Government on terms and conditions for Resellers are to be made in a time bound manner, we would like to have comments and views on any or all issues in this paper on or before 5th January 2007. For further clarification, Mr. M.C. Chaube, Advisor (FN), TRAI may be contacted on Tel. No. 23230404 and e-mail: chaubemc@trai.gov.in. Submission in electronic form would be appreciated.

(Nripendra Misra)
Chairman
Chapter 1
Introduction

1.1 International Private Leased Circuits (IPLC) that offers global connectivity through submarine cable is a critical input for provision of Broadband and Internet services, International Long Distance Voice Telephony and for a number of key industries like Information Technology (IT) and Information Technology enabled services. Software exporters, BPO units, banks and other financial services companies, Internet Service Providers (ISPs) and ILDOs are key users of IPLCs. IPLC is also considered to be one of the basic requirements for Information Technology (IT) and IT-Enabled Services (ITES) industries like Business Process Outsourcing (BPO) and Knowledge Process Outsourcing (KPO). India has emerged as one of the leading providers of ITES in the world and is fast acquiring a very good reputation in this sector. In addition, ISPs use IPLC for their upstream connectivity abroad.

1.2 The ILD segment of telecom sector was opened for competition in March 2002. Since 2002, the Authority has been closely monitoring the market developments in the ILD sector in general and in IPLC segment in particular. The Authority found the market for IPLC to be lacking in competition and then it fixed tariffs for IPLC services based on cost.

1.3 To address other issues, which came out during the tariff fixation process, TRAI, as per its established practices, initiated a consultation process on the measures to promote competition in the IPLC segment with the issue of Consultation Paper No.5/2005 in June 2005. The Consultation Paper, reviewed the Indian scenario and developments in other countries. Specific concerns raised in the consultation paper included:

(i) the pricing and provisioning of IPLCs
(ii) the difficulties customers were reporting in obtaining restorable services
(iii) issues relating to access to cable landing stations (CLSs) for submarine cables
(iv) possible introduction of reselling of IPLCs.
1.4 Based on the analysis of stakeholders’ feedback and the best international practices governing IPLC segment, the Authority had formulated its recommendation on the issues pertaining to measures to promote competition in International Private Leased Circuits (IPLC) in India and submitted to the Government on 16.12.2005. TRAI in its recommendation inter-alia recommended introduction of resale in IPLC segment. Relevant Para 3.5 of the TRAI’s Recommendation is reproduced below for ready reference:

“3.5.1 The Authority therefore, recommends that the introduction of “Resale” in the IPLC segment of ILD market be introduced after five years of opening up of ILD sector i.e. with effect from February 2007, so as to give enough time for the new entrants to fully consolidate their investment plans in the international bandwidth market.

3.5.2 For enabling this, the clause 2.2 (a) of ILD license, which prohibits “Resale”, should be suitably amended, at the earliest.

3.5.3 After a decision to introduce the resale in IPLC segment is taken by the govt., the terms and conditions applicable to resellers will be recommended by the regulator after a consultation process.”

1.5 The above recommendations of the Authority have been accepted by the DOT vide its letter No. 16-03/2006-BS-I dated 23.11.2006 (copy at Annexure-1). To operationalise these recommendations, the Government has also sought detailed terms & conditions for the resellers in IPLC segment.

1.6 Government had already envisaged the introduction of Resale in the Telecom sector. Relevant para from NTP 1999 is reproduced below:

“Resale would be permitted for domestic telephony, announcement for the modalities thereof to be announced along with the opening up of national long distance by August 15, 1999. Resale on international long distance will not be permitted till the year 2004.”

Present consultation paper is restricted to the resale in IPLC segment as the mandate given by the Government.
1.7 With a view to bringing out all the related aspects of the issue and to provide a suitable platform for discussion, this consultation paper discusses the approach, modalities and terms & conditions in respect of introduction of resale in IPLC segment.
Chapter 2
Present Scenario of IPLC in India

2.1 Only International Long Distance Operators (ILDOs) are able to sell IPLC services in India, which they may do either with a corresponding international telecoms entity (ITE) in the end country (each operator is said to be providing a half-circuit service) or on an end-to-end basis, if the Indian ILDO also has an ITE licence for the end country (a full-circuit basis). To clarify one point of possible misunderstanding, the ITE term is a general one for any country; its realisation in India is an ILDO and ISP with International Gateway facility.

2.2 The ILD segment of telecom sector was opened for competition in March 2002. Until that date the government-owned monopoly provider of international services had been Videsh Sanchar Nigam Ltd (VSNL). Since liberalisation, international long-distance operator (ILDO) licences have been acquired by Bharti Airtel Ltd., Reliance Communications, Bharat Sanchar Nigam Ltd (BSNL) and Data Access Ltd. However Data Access Limited is not operational at present. The sector was further liberalized since beginning of year 2006 when Government reduced the entry fee for ILD Licence from Rs. 25 crore to Rs. 2.5 crore and annual revenue share reduced to 6% from existing 15% both for existing and new ILDOs. After reduction of entry/Licence fee, two more ILDO licences (i2i and AT&T) have been issued.
2.3 Table given below shows the Capacities of Submarine Cables in India as on October 2006, based on available data with TRAI:

**Capacities of Submarine Cables in India (Oct 200)**

<table>
<thead>
<tr>
<th>Submarine Cable</th>
<th>Landing Stations</th>
<th>Landing Station owned by</th>
<th>Type of Cable System</th>
<th>Designed capacity of existing cable</th>
<th>Equipped / owned capacity (Gbps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMW3</td>
<td>Mumbai</td>
<td>VSNL</td>
<td>Consortium, Protected</td>
<td>212 Gbps</td>
<td>20</td>
</tr>
<tr>
<td>SMW4</td>
<td>Chennai, Mumbai</td>
<td>Bhart VSNL</td>
<td>Consortium, Protected</td>
<td>1.20 Tbps</td>
<td>20</td>
</tr>
<tr>
<td>SAFE</td>
<td>Cochin</td>
<td>VSNL</td>
<td>Consortium, Unprotected</td>
<td>5 Gbps</td>
<td>5</td>
</tr>
<tr>
<td>FLAG (Reliance)</td>
<td>Mumbai</td>
<td>VSNL</td>
<td>Hybrid, Protected</td>
<td>160 Gbps *</td>
<td>20**</td>
</tr>
<tr>
<td>i2i</td>
<td>Chennai</td>
<td>Bharti</td>
<td>Private, Unprotected</td>
<td>8.40 Tbps</td>
<td>160</td>
</tr>
<tr>
<td>TIC</td>
<td>Chennai</td>
<td>VSNL</td>
<td>Private, Unprotected</td>
<td>5.10 Tbps</td>
<td>320</td>
</tr>
<tr>
<td>Falcon</td>
<td>Mumbai</td>
<td>Reliance</td>
<td>Private, Unprotected</td>
<td>2.56 Tbps</td>
<td>80</td>
</tr>
<tr>
<td>Indo-Sri Lanka Cable</td>
<td>Tuticorin</td>
<td>BSNL</td>
<td>Private, Unprotected</td>
<td>960 Gbps</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>CLS-6 Cables 9</td>
<td>4</td>
<td></td>
<td>18.60 Tbps</td>
<td>655</td>
</tr>
</tbody>
</table>

* After the Arbitration Award by International Court FLAG is allowed to upgrade the capacity to 80 Gbps in both the directions.
** 10 Gbps each in both the directions, about 5 Gbps is used for transit traffic.

Source: Operators’ Data

2.4 Concept of Reseller:

2.4.1 Resale is “the sale or lease on a commercial basis, with or without adding value of telecommunication services from a telecommunication carrier”. Resale is the modality for optimizing the resources in the sector by facilitating make or buy decisions. It is an important entry strategy for many new entrants, especially in the short term when they are building their own facilities. Resellers or non-facility based service providers are introduced to enhance competition.

2.4.2 Fundamentally, a Reseller is an entity who sells what he buys from the service provider and gets his arbitrage on difference between bulk rate and retail rate. Basically, therefore, a Reseller only sells the products which the service provider is authorized to sell under the Licence. In the context of resale in IPLC segment Reseller would provide International bandwidth on demand. It may
resell the service without an infrastructure or by making value additions through additional infrastructure owned or leased.

2.5 Present Position of Reseller as per existing ILD Licence:

Resale in the IPLC market have not been permitted in India to any one other than amongst the ILDOs, as the focus has been on the creation of infrastructure by new ILDO players. As per NTP’99, resale in ILD sector is not to be permitted till the year 2004. Clause 2.2(a) of the existing ILD Licence prohibits “Reseller”.

The relevant condition of the ILD Licence is reproduced below:

2.2 (a) The ILD Service is basically a network carriage service (also called Bearer) providing International connectivity to the Network operated by foreign carriers. The ILD service provider is permitted full flexibility to offer all types of bearer services from an integrated platform. ILD service providers will provide bearer services so that end-to-end tele-services such as voice, data, fax, video and multi-media etc. can be provided by Access Providers to the customers. Except “Global Mobile Personal Communication Service (GMPCS) including through INMARSAT” for which a separate licence is required, other listed services at Appendix are permitted to the LICENSEE. ILD service providers are permitted to offer international bandwidth on lease to other operators. ILD service provider shall not access the subscribers directly (except for Leased Circuits/CUG) which should be through NLD service provider or Access Provider. Resellers are not permitted.

2.2 (b) ILD service provider can enter into an arrangement for leased lines with the Access Providers/NLD service provider.

Further, ILD Service Providers can access the subscribers directly only for provision of international Leased Circuits/Close User Groups (CUGs). Leased circuit is defined as virtual private network (VPN) using circuit or packet switched (IP Protocol) technology apart from point to point non-switched physical connections/transmission bandwidth. Public network is not to be connected with leased circuits/CUGs.

The Authority recommended that the introduction of “Resale” in the IPLC segment of ILD market be introduced after five years of opening up of ILD sector i.e. with effect from February 2007, so as to give enough time for the new entrants to fully consolidate their investment plans in the international bandwidth market. For enabling this, Authority recommended that the clause 2.2 (a) of ILD Licence, which prohibits “Resale”, should be suitably amended, at the earliest.
2.6 The general role of resale in the provision of leased circuits.

2.6.1 The Resellers, are normally, provided with easy entry conditions with light-handed regulation and without need for high Capex associated as with facility based operators because they play a significant role in enhancing the competition in the market. Resellers can also make value additions and can serve the retail market more efficiently than the main facility based operators who can concentrate on providing wholesale services to other service providers and Resellers. Resellers can do reselling through disaggregating the higher capacity into smaller denomination.

2.6.2 Resale of bandwidth services tantamount to permit service based operations under an independent Licence utilizing facilities of other entities. Competition can be introduced either through facility based or non-facility based modality. Facilities based competition involves licensing of entities, which own and operate facilities for provision of services. Non-facility based competition would entail competition by entities not operating their own facilities. There may be two kinds of the Resellers one who has access and national long distance telecom infrastructure and other one who does not own any kind of telecom infrastructure.

2.6.3 The diagram given below as Figure-1 shows how the full end-to-end IPLC consists of linked components from a mixture of terrestrial and submarine cables and other transmission facilities.

Figure-1: Diagram of an end-to-end IPLC, showing linked components [Source: Analysis]
2.7 Factors affecting provision of services from Resellers to end users:

2.7.1 Presently IPLCs are provided by only ILDOs. There is a need for clear statement that what Resellers are allowed to provide, usually link to specific and simple form of Licence and include the following:-

- There must be facility based IPLC providers (i.e. ILDOs) who need to be mandated to sell IPLC on a wholesale basis i.e. at a lower price than the basis on which they sell retail to end users.
- There must be a mechanism for the Resellers to provide connectivity to end users, preferably with some option of supply.

2.7.2 The most important of these pre-requisites is, which in India would require existing ILDOs to be mandated by Regulations, to provide IPLCs wholesale probably from POP to POP.

2.8 Prerequisite for provision of services from Resellers to end users:

2.8.1 Access to end user becomes important to create effective competition in the IPLC market and it is considered a pre-requisite, since it is aimed at ensuring that services from all Resellers are available to end users. If access to end user is not allowed to the Reseller of IPLC then it may encourage anti-competitive behavior on the part of entities owning access and domestic bandwidth. An illustrative list of such anti-competitive conduct of the integrated operators with dominant share in market is given below:

i) Cross-subsidisation.
ii) Imposition of vertical price squeeze.
iii) Discounts on bundled services with intent to lessen competition.

2.8.2 Present Position of Resale in National Long Distance Service Licence:

The relevant clauses of NLD Licence are reproduced below:

2.2 (d) & 17.2 NLD service Licensee shall be required to make own suitable arrangements / agreements for leased lines with the Access Providers for last mile. Further, NLD Service Providers can access the subscribers directly only
for provision of Leased Circuits/Close User Groups (CUGs). Leased circuit is defined as virtual private network (VPN) using circuit or packet switched (IP Protocol) technology apart from point to point non-switched physical connections/transmission bandwidth. Public network is not to be connected with leased circuits/CUGs. It is clarified that NLD service Licensee can provide bandwidth to other telecom service licensee also.

2.8.3 Present Position of Resale in UASL and CMTS Licence:

The government has already permitted passive infrastructure sharing as evident from Licence condition of UASL and CMTS service providers but resale is not permitted. However, reselling in the form of franchising is already permitted in UASL. The relevant clauses of the Licence are reproduced below:

Clause 2.4 of UASL Licence:

2.4 LICENSEE can appoint any franchisee not limited to Cable Service Provider for provision of last mile linkages including suitable rural exchanges to provide service. However, all responsibilities for ensuring compliance of terms & conditions of the LICENCE shall vest with the LICENSEE. The terms of franchise agreement between LICENSEE and his franchisee shall be settled mutually by negotiation between the two parties involved.

Clause No.33 of UASL Licence:

i) Sharing of “passive” infrastructure viz. building, tower, dark fiber etc. is permitted.

ii) Provision of point to point bandwidth from their own infrastructure within their Service Area to other licensed telecom service providers for their own use (resale not to be permitted) is also permitted.

iii) Sharing of switch by the LICENSEE for providing other licensed services is permitted.

Clause No.34 of CMTS Licence:

i) Sharing of “passive” infrastructure viz. building, tower, dark fiber etc. is permitted.

ii) Provision of point to point bandwidth from their own infrastructure within their Service Area to other licensed telecom service providers for their own use (resale not to be permitted) is also permitted.
2.8.4 It is very clear from the above clauses that resale is not permitted. Access to end user becomes important to create effective competition in the IPLC market. To facilitate IPLC Resellers to access the end users they may be allowed to enter into an arrangement/ Service Level Agreement (SLA) with the Access Providers/ NLD service providers for provisioning of IPLC. Views of the stakeholders will be of great importance in this regard.

2.8.5 As per experience elsewhere non-facility based competition such as resale has played an important role in promoting and sustaining competition in telecom services. It provides an effective entry vehicle for new entrants that may initially lack the required capital to building up their own facility. Reseller tends to stimulate usage of existing network through innovative means, and thus benefit the facility based provider as well as the growth of the economy. Increased competition from Resellers may help in expanding the availability of innovative services such as new billing terms and alternative innovative tariff packages. Thus, by promoting effective competition, resale can help to achieve the public interest goal of economically efficient, competitively priced high quality communication services to consumers and businesses.
Chapter 3
Licence fee, Tariff and Security Conditions

**Licence Fee:**
3.1 Generally, in any emergent market, where Telecom Services have huge scope for stimulating overall economic growth, revenue maximization through licensing is not the path chosen. International experience has been to look beyond, short term Licence revenue objectives and implement a minimal Cost Licensing regime, to cover the administrative cost of issue of Licence and monitoring compliance of conditions of Licence by operators. The economic logic behind such an approach is that the increased efficiency of the market would stimulate the over all economic activity in the country which would result in higher incremental Government revenue through increased tax revenues arising out of new and innovative resale operations. It is also a view held by many that, a high Licence fee regime in general is likely to create a barrier to resale market entry.

3.2 Administrative expenses are normally recovered through annual fee contribution from operators on the basis of their revenues. The Licence fee in case of facility based services may be higher since the administrative / regulatory issues pertaining to interconnection and network structure will be larger. Fees for mere service provision may be lower depending on the degree of competition. In many countries, the Resellers or mere service providers do not require licensing and hence pay no Licence fee.

3.3 Related to this is the point that, the treatment of capacity purchased for resale in respect of the Adjusted Gross Revenue (AGR). According to one view, Resellers would be purchasing capacity from the ILDOs that includes 6% annual Licence fee paid by ILDOs to the Licensor and thus it would amount double loading of fees. This in their view, would mean that Resellers would be unable to be price competitive.
3.4 The main issue for consideration is the Licence fee and other terms and conditions for this category of services provider.

**Tariff:**

3.5 Resale in telecom is the sale or lease of telecom service on a commercial basis, with or without adding value to it. Resale is the modality for optimizing the use of resources in the sector by facilitating make or buy decisions. It is an important entry strategy for many new entrants, especially in the short term when they are building their own facilities.

3.6 Resellers use a variety of methods and marketing tools to acquire customers, including lower rates, multi-level marketing, tele-marketing, agent sale, direct mail, incentive program and more. They purchase discounted capacity from Facility Based Operators and sell it at competitive retail prices. Non-facility based operator do not entail any additional cost to the economy but provide additional benefits in terms of product innovation and prices customized to end users need.

3.7 Government has also accepted the recommendation of the Authority for mandating equal access to cable landing stations, this would also provide more options to Resellers to buy wholesale bandwidth from licensed ILDOs. This may necessitate a mandate to the facility based IPLC provider to sell IPLC on a wholesale basis i.e. at a lower price than the basis on which they sell retail to end users. Tariff structure for IPLC fixed by the Authority in the year 2005 is in the form of ceiling. Ceiling tariffs fixed for IPLC service providers may result in a situation where a facility based operator (IPLC provider) is likely to offer lower differential tariffs to end consumers vis-à-vis to a Reseller. This in all likelihood may make the operations of the Reseller unviable defeating the very objective of introduction of resale. There are two known methods available for checking or preventing such a situation. One is to regulate appropriately the prices of IPLC to be sold to the Reseller by an ILDO and the other is to resort to intervention based on substantiated complaints.
**Security Conditions:**

3.8 Government has already mandated security conditions for ILDOs through ILD Licence wherein installation of suitable monitoring equipment is necessary for the ILDOs. Relevant clause is reproduced below:

23.13 The designated person of the Central/State Government as conveyed to the Licensor from time to time in addition to the Licensor or its nominee shall have the right to monitor all telecommunication traffic in every Gateway Switch, MSC, BSC and any other point in the network set up by the licensee. The licensee should make arrangement for monitoring simultaneous communication traffic (at least 210 channels) by Government security agencies at location individually desired by the Central Government, the State Government/Union Territory. The requisite infrastructure in terms of hardware/software required for monitoring of all telecommunication traffic shall be engineered, provided, installed and maintained by the Licensee at the licensee’s cost. These arrangements for monitoring of all communication traffic by the Government security agencies at locations designated by them should be made by the licensee.

23.17 In areas which are sensitive from security point of view as may be notified from time to time by the Licensor, implementation of any installation of the equipment and execution of project shall be taken up only after the Licensor’s approval.

23.18 The Gateway Station shall be set up only after getting the permission or clearance from the Licensor. This is a time consuming process and can take more than a month subject to submission of required information in complete form.

23.19 Gateway station (Transmission & Switching Centre) will not be set up in security sensitive areas. The security sensitive areas would be identified from time to time. As on date the security sensitive areas are Punjab, J&K, North Eastern States, border areas of Rajasthan, Andaman & Nicobar Islands and coastal areas of Gujarat and Tamilnadu (excluding Chennai).

23.21 The cost of monitoring equipment shall be borne by the ILD service licensee.

23.22 The installation of the monitoring equipment at the Gateway Station is to be done by the licensee. After installation of the monitoring equipment, the ILD service licensee should get the same inspected by monitoring /security agencies. The permission to operate/commission the gateway will be given only after this.
3.9 Presently, the ILDOs are fully responsible to comply with the security condition imposed on them through the Licence. Today, the ILDO is selling the IPLC directly to the user and therefore, the security agencies can collect information regarding any user from the ILDO. However, with the introduction of resale, IPLC bandwidth would be sold in smaller denominations to many users and therefore security agencies need to have user information from Resellers/ILDO, for such resale of IPLC bandwidth. As far as installation of the monitoring unit is concerned, it can be argued that as ILDOs have already installed such monitoring equipment and hence insisting the same to reseller will be an unnecessary and avoidable duplication of infrastructure. National security is of great importance, therefore, stakeholders’ comments are solicited on the issue of security conditions to be imposed on Resellers by the Licence.

**Duration of the Licence:**

3.10 Resellers can be non-facility based operators and, therefore, they may either lease infrastructure from the facility-based operators or decide to develop a very small portion of transmission facility which may be used for de-multiplexing higher streams into lower streams and vice-versa. Today, the ILDO Licence is initially valid for a period of 20 years and extendable by a period of 5 years subject to satisfactory performance in accordance with terms & conditions of the Licence particularly in regard to Quality of Service (QoS) parameters. Resellers may be non-facility based operators and therefore, a smaller period of Licence may also be considered. Stakeholders’ comments are solicited on the issue of duration of Licence.
Chapter 4
International practices

4.1  International experience suggests that, resale has probably been the most significant and effective driver of competition that the telecom market particularly relating to international capacity have seen globally. In many countries the number of IPLC providers are very large and most of them are non-facility based operators, who do not own the international cable systems. The table below indicates that number of facility-based operators and IPLC providers in some developed countries, a majority of which are resellers:

<table>
<thead>
<tr>
<th>Country</th>
<th>Total number of IPLC providers</th>
<th>Number of facility-based operators in IPLC segment</th>
<th>Number of resellers</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>33</td>
<td>4</td>
<td>29</td>
</tr>
<tr>
<td>USA</td>
<td>32</td>
<td>6</td>
<td>26</td>
</tr>
<tr>
<td>Germany</td>
<td>32</td>
<td>5</td>
<td>27</td>
</tr>
<tr>
<td>South Korea</td>
<td>14</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>India</td>
<td>3</td>
<td>3</td>
<td>Nil*</td>
</tr>
</tbody>
</table>

* In India for providing IPLC one needs an ILDO Licence same as required for facility-based operators.

4.2  Contrast between the situation in India and some of the developed countries is clearly apparent. With the reduction in the ILD Licence fee by the Government more entities are obtaining ILD Licence but the Resellers still have a role in increasing the total number of international bandwidth providers to increase competition.

4.3  The brief details of licensing regime in some of the countries are summarized hereunder:-

**Singapore**

The Singapore telecoms services market was fully liberalized from 1 April 2000. The Licence regime was set up using a dual licensing approach consisting of facilities based operator (FBO) licences and Service Based
Operator(SBO), with the FBO Licence encompassing all the rights of a SBO Licence. There is no limitation on the number of FBO or SBO licences.

FBO licences can be obtained with no initial fee but are subject to an annual fee of 1% of gross turnover (subject to a minimum of SGD 100,000 per year), the licences are for a period of 20 years.

Applicants for FBO licences are required to provide information including their strategy, organizational structure, the first five-year business plan and to provide a performance bond equal to 5% of total budgeted capital investment. There are presently more than 50 FBO licences held by around 30 separate entities.

Operators that do not want to build their own network but rather wish to lease network elements from FBOs to provide their own telecommunication services, or to resell the services of FBOs, need to have an SBO Licence. The SBO individual Licence allows provision of a range of different services (there is also a class Licence that allows provision of one service type only). SBOs are subject to no initial fee and an annual fee of SGD 5000. Licences are valid for three years and renewable every three years. A banker’s guarantee of SGD 100000 is required under certain circumstances.

South Korea

The Ministry of Information and Communications (MIC) oversees licensing and regulation, while the Korean Communications Commission (KCC) is a sub agency pursuant to Article 37 of the Framework Act on Telecommunications, which is responsible for deliberation of and arbitration on disputes that may arise among operators in Korea. One other Act, the Telecommunications Basic Act, defines the framework of licences, dividing them into:-

- basic telecoms – providers of basic services using their own facilities, including fixed and mobile services.
- Specially designated operators – providers of basic services by resale of other providers' basic service.
- Value-added telecoms – providers, providing other than basic services, including for example ISPs, on-line game providers and e-commerce service providers.

The licensing regime has allowed international carriers to obtain ready access to the Korean market to provide a complete range of services.

Domestic Korean ISPs have also been able to secure access to international bandwidth and to resell IPLCs under this licensing regime. For example, Korea broadband service provider Thrunet, announced in January 2001 it had acquired an IPLC Licence, which secures its supply of international bandwidth and strengthens its leased line and broadband Internet business. The Licence allows Thrunet to enter the IPLC market by offering customers the transmission of voice, data and images via satellite or submarine cable in order to connect to communications facilities to other countries.

**United Kingdom**

In December 1996 the UK government introduced new international facilities licenses. Until this point only BT and C&W were licensed to supply IPLCs. In the light of this Oftel (now Ofcom) reassessed its regulation of international markets to identify where it believed competition would be possible and where it was likely that regulation would continue to be necessary. Potential barriers to entry were identified so that they could be regulated effectively to ensure any market power possessed by the incumbent former duopolists could not be abused, these included the following:-

CLS access – Ofcom acknowledged that BT as the owner of the CLS had bottleneck control and obliged it to provide a connection service (known in UK as in-span handover). The starting charge for the connection service was determined using LRIC with the evolution of the charge governed by charge control (as part of a basket)
Backhaul – At May 1997 there were no alternatives to BT for backhaul services. Backhaul was not obliged to be provide as an interconnection service but BT was required to publish tariffs and to practice non-discrimination.

USA

The market for international data in the USA is competitive, fuelled in large part by long-standing competition between the original three main operators, AT&T, MCI and Sprint, then by the addition of other operators including Resellers, the deregulatory efforts of the FCC and advances in technology. International data services have not been regulated since 1985, when the FCC concluded that there were no dominant operators in the market.
Chapter 5
Issues for consideration

Q.1 Who should be a ‘Reseller’ and what should be the Scope of ‘Resale’ in the context of IPLC market in India? Give justification.

Q.2 What eligibility criteria should be set for Resellers? Please comment with reasons?

Q.3 What should be the maximum limit of total foreign equity to be maintained in the Reseller Company at any time?

Q.4 What should be the entry fee applicable for a Reseller in IPLC? Please substantiate the answer with reasons.

Q.5 Enumerate the factors that should be taken into account while determining the Licence fee for Resellers? What should be the level of Licence fee? Should minimum amount of licensee fee be specified irrespective of AGR?

Q.6 Whether Licensing /Registration of Resellers should be at National Level or for specific service areas i.e. circle or service area wise? Give reasons.

Q.7 What should be the period of Reseller Licence/ Registration? Give reasons.

Q.8 (a) Should there be any rollout obligations for Resellers? If yes, justify with reasons and suggest appropriate criteria.

(b) Should there be a performance bank guarantee for the Resellers? If yes, suggest the amount and modalities.
Q.9 List out security conditions that are required to be imposed on Resellers?

Q.10 Should the Resellers be allowed to access the end user through an arrangement with the Access Providers/ NLD service providers for accessing the end user for providing IPLC? Please comment with justification and reasoning.

Q.11 What should be the other terms & conditions for Resellers? Please list and comment with reasoning.

Q.12 Should the Authority fix the price at which Resellers purchase IPLC wholesale capacity from the ILDOs? If yes, what should be the basis of that? If not, why?
To
The Chairman,
Telecom Regulatory Authority of India,
A-2/14, Safdarjung Enclave,
New Delhi.

Subject: TRAI Recommendations dated 16th December 2005 on “Measures to Promote Competition in International Private Leased Circuits (IPLC) in India”.

With reference to the TRAI recommendation on the above mentioned subject, it is to be stated that the competent authority has accepted the following two recommendations:

1. Introduction of Resale in IPLC Segment.

It is requested that the detail terms and conditions in respect of these two recommendations may please be submitted to DoT. Relevant clauses of the Licence agreement shall be suitably amended upon receipt of the detail of terms and conditions from TRAI.

With regards,

Sd/-
(G.P. Srivastava)
DDG (CS)