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No.AIBSNLOA/CHQ/2011/25

Dated: 3rd May 2011

To

Shri R.K.Upadhyay,
Chairman and Managing Director,
Bharat Sanchar Nigam Limited,
New Delhi – 110 001

Sub: Saving of BSNL's Revenue - An article on "Fact sheet on Fees – reg

Sir,

We are enclosing herewith an article titled "The Fact sheet of Fees" written by Shri N.Muralidharan, JTO, IOBAS Data Centre, Chennai under ITPC Pune. We have earlier forwarded another write up by Shri N.Muralidharan on "BSNL as PRC outsourcing vendor". Both these Articles contain very specific and rational points towards the measures needed to be taken in our policy matters concerning the important areas to save BSNL's precious revenue as well as increasing it.

2. *In the present article, Shri N.Muralidharan has analysed the Licence Fee and Spectrum charges being paid by BSNL and has pointed out that by including certain revenue under NLDO/ILDO head and by proper segregation of revenue under various heads, BSNL could save crores of rupees while paying license fees and spectrum charges.*

3. We strongly feel that the points raised by Shri N.Muralidharan need to be examined with intent and necessary corrective measures, if required, are to be taken in the larger interest of BSNL – especially when the financial health of BSNL is fast deteriorating.

4. As it is learnt that deadline for payment of License Fees is fast approaching, we earnestly request you to kindly bestow your personal attention to this issue and cause examination of the points raised in the article, at the earliest.

With kind regards,

Yours sincerely,

(V.P.Arya)
General Secretary



The FACT Sheet of Fees

BSNL Licensee Fee and Spectrum Charges

**Compiled by
Muralidharan N**

Suchí sukí bhava

Dedicated to
Corruption free Bharat Movement

"All activities depend first on the Treasury. Therefore, a KING shall devote his
best attention to it"
- Arthashastra (2.8.1,2)

Try until your brain becomes DRY
- Iyan Thiruvalluvan

The FACT Sheet of Fees

(BSNL Licensee Fee and Spectrum Charges)

Telecom fees:

A telecom service provider in India has to pay the following fees/charges to Central Government (i.e. DoT).

1. Entry fee : As per auction or flat fee on first come first basis
2. Annual License fee : A percentage from the Gross revenue of the particular service of operation (currently the Gross revenue is Adjusted Gross Revenue (AGR)). This also consists of USO Levy.
3. Spectrum Charges : A percentage from the Gross revenue of the particular service of operation, for the usage of allotted spectrum (currently the Gross revenue is Adjusted Gross Revenue (AGR))

These are the major fees paid by the telecom service provider apart from the Direct and Indirect TAXs.

Various Licensees for Telecom Services:

Currently there are several types of Licenses for telecom services in India, even the walky talky used by Security Agencies also comes under Telecom Services and these are regulated by DoT (Virtually Regulated by TRAI and Governed by DoT). This article focuses only the major services offered by BSNL on par with its private competitors.

Before entering to the core of the topic, we will have a glance on various types of License(s) on telecom services

NLDO: National Long Distance Operator

The operator or Telecom service provider having this license can carry Long distance or backhaul switched traffic.

The NLDO can operate as a carrier between different SSA (or LDCCs) and SDCA (or SDCCs) for BSOs.

This kind of operator can act as an inter circle carrier for CMSPs.

A NLDO can carry intra -circle traffic, where such carriage is with mutual agreement with originating service provider.

NLDO can provide Point to Point Leased Lines, VPNs, IP Leased lines.

NLDO can lease out the bandwidth to other operators.

NLDO can provide long distance CUG and Calling Cards.

From these it can be concluded a NLDO can provide all sorts of back haul services except direct switched traffic to customers.

For the full Scope of NLDO Licensee terms & conditions refer Annexure

BSO: Basic Service Operator

This is very old and everybody knows about this. Basic service Licensee can offer direct lines in form of wired line or wireless (WiLL-M and WiLL-F) for switched traffic to the customers. For which the customers are geographically categorized into several SDCAs.

CMSP: Cellular Mobile Service Provider

This license is also very familiar to BSNLians. This category of licensee can offer cellular based mobile traffic to their customers with GSM or CDMA. UASL-Dual tech allows a single licensee can offer both the CDMA and GSM services.

UASL: Unified Access Service Licensee

A UASL can offer both BSO and CMTS (i.e single unified licensee). Except BSNL and MTNL all the other operators are having single license for BSO and CMTS services as UASL. BSNL and MTNL are having separate BSO and CMTS licenses.

ILDO: International Long Distance Operator

The ILD Service is basically a network carriage service (also called Bearer) providing International connectivity to the Access Providers (BSO/CMTS/UASL) as well as NLDO. The ILD service provider is permitted full flexibility to offer all types of bearer services from an integrated platform.

Also ILDOs can provide international leased lines directly to VPN/IP leased lines

ILDOs can directly access international CUG via NLDOs

ILDO can engage reseller for Bandwidth selling (i.e IPLCs)

ILDOs are permitted to provide bandwidth to other operators

ISP: Internet Service Provider

An ISP can provide pure Internet service (I.e accessing the internet, IPTV), IPTelephony (not with in India), PC to PC telephony (not with in India).

An ISP can obtain Transmission Link from any Telecom Service providers with mutual agreement for carrying the traffic originated and terminated by a subscriber.

IP-I: INFRASTRUCTURE PROVIDER CATEGORY - I

For IP-I the applicant company is required to be registered only. No license is issued for IP-I, a company requires a simple registration as IP- I provider. Companies registered as IP-I can provide assets such as Dark Fibre, Right of Way, Duct space and Tower.

IP-II: INFRASTRUCTURE PROVIDER CATEGORY – II

It requires separate license. An IP-II licensee can lease / rent out /sell end to end bandwidth i.e. digital transmission capacity capable to carry a message.

With this brief introduction about the various types of Telecom services/ Licenses, the reader might have got some idea about the prevailing telecom architecture in the country. For Scope of licenses kindly refer Annexure. **BSNL is having all these licenses.** Refer circular No 509-6/2007-Regln Dated 23/SEP/2010 for BSNL License details. But **quite surprisingly** BSNL in its own circular No 509-6/2007-Regln Dated 23/SEP/2010, SUB: Details of licensee agreements has **not mentioned about this IP-I and IP-II registration.**

LF: LICENSE FEE

An operator has to pay the following percentages of LF calculated from the AGR. This LF includes the USO Levy also. (For NLDO USO Levy 5% and Fee 1% totally the LF is 6%)

Type of License	Annual LF (including USO Levy) as % AGR
CMTS	A Circle /Metro=10% B Circle =8% C Circle =6%/ 5%
BSO	
UASL	
NLDO, ILDO,VSAT, IP Cat-II	6%
Radio Paging Services & PMRTS	5%
Internet service (Pure Internet)	0%
Internet service (with Internet Telephony)	6%

Spectrum Usage Charges

For CMSP it is 6% of AGR and for WiLL-M & WiLL-F it is 3% of AGR

Three important points are to be noted here:

1. For NLDO / ILDO the **LF is lower than** BSO/CMTS. Also the revenues from these services can be booked separately.

2. Currently LF for pure Internet Service is **zero**

3. Since there is no separate license for IP-I, there is **no LF and USO Levy for IP-I**

AGR: Adjusted Gross Revenue

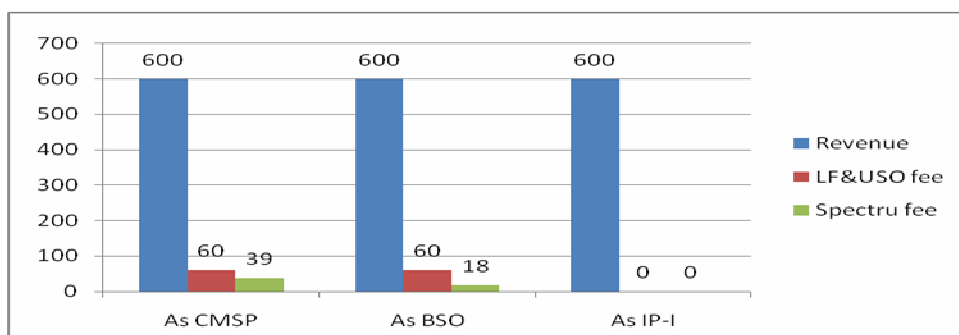
AGR is nothing but the amount qualifies from the revenue earned from telecom services, for paying the LF. By offering service, a telecom service provider generates gross revenue, in this revenue some amount will be deducted (viz amount paid to other OLOs, Roaming charges, Service Tax paid, etc) and the amount after deduction is called AGR. From this AGR the License FEE and spectrum charges will be paid. The components excluded/ deducted from Gross Revenue to calculate AGR (Major components related to BSNL) are discussed here:

Some Important Facts in AGR and LF

1. IUC, Access Charges, Roaming Revenue passed to other operators, Service Tax paid, Sale of Hand sets for CMSPs and BSOs (Refer Annexure 3 of DOC^)

Infrastructure Revenue:

2. Revenue earned through Infrastructure leasing (viz tower sharing, Darkfiber, Duct) is part of AGR, if these activities are offered by Telecom service provider under inclusive license (i.e BSO, CMTS, NLDO etc). But if these services offered under **IP I (Infrastructure Provider Category -I)** registered company, there is no need to pay LF for these revenues. Since BSNL has been registered under IP I and BSNL is having separate CIVIL & Electrical wings, it can show these revenues under these wings, so that these revenues can be excluded from AGR. (Refer page 30 of DOC^). By this way BSNL can save enormous amount, because the **IP-I revenue will increase to more than Rs 600 Cr.**



(the amounts are in Crore)

Fig 1: Various kinds of implication(s) of tower sharing revenue booking

Since the tower sharing revenue is shown under either BSO or CMSP, BSNL is forced to pay (applicable) LF, USO Levy, Spectrum usage charge. DoT in its letter /circular shows BSNL as Registered IP-I provider under serial no 271 (RC issued on 08.07.2009 (Regd.No. 271/2009). But **quite surprisingly** BSNL in its own circular No

No 509-6/2007-Regln Dated 23/SEP/2010, SUB: Details of licensee agreements, has **not mentioned about this registration.**

Late Fee, LD etc:

3.The Late Fees, LD charges, tender fees extra can be excluded from AGR (Refer page 13 of DOC^). (But BSNL in its Circular no-CA- 234 Dated 09/07/2010 has intimated only about LD, it took 3 years to implement it). **Also In 2007-08 the amount under surcharge head is Rs 123 Cr & in 2008-09 it is Rs 167 Cr, but surprisingly in 2009-2010 it is ZERO. Since still the surcharge / late fee concept exists, it should have been shown as separate component for excluding it from AGR.**

Training Center accounting

4.Revenue earned from Training charges & Consultancy Charges should be part of AGR, at the same time cost incurred for this training and consultancy can be excluded from AGR (This is not discussed in a clear way, Refer page 13 of DOC^). Somebody can analyze this component (i.e the “Cost incurred for this training and consultancy”) and if possible all the expenditure of Training centers (viz Salary to staff, Electricity bills, etc) can be excluded from AGR. By this way we can save a lot.

5.If hand sets are sold as bundled service then it should brought under AGR otherwise not required (Refer page 40 of DOC^)

^DOC- TRAI Recommendations on components of AGR 13/Sept/2006

Computer / Network Hardware Revenue :

6.In case of some enterprise customers, BSNL through its channel partner/ system integrator, is supplying some computers/servers, routers etc apart from CPE(i.e Modem). The TRAI recommendation says, only the telecom equipments bundled with telecom service should brought under AGR, the equipments which are not part of telecom service may be excluded. But BSNL in its **BS L/BD/6-23/RF Vendor/2006 07th July, 2010 Circular has mentioned the computer/ hardware components also as part of AGR, because BSNL did not appeal in TDAST. Other operators appealed in TDSAT and are enjoying the benefits.**

^DOC- TRAI Recommendations on components of AGR 13/Sept/2006

Distribution & Accounting of Revenue:

7.**In BSNL there is no separate booking for NLDO and ILDO, all the revenue is booked under its BSO or CMTS heads** (even VSAT, PMRTS, etc segregation also not there). The Revenue is simply distributed in terms of percentage,

For BSO : - 14.84% is for NLDO 6.21% is for ILDO remaining 79% is for BSO

For CMSP :- 13.48% is for NLDO 3.93% is for ILDO remaining 82%% is for CMSP

But practically more revenue can be booked under NLDO, all calls going outside from SDCA come under NLDO. Take an example of a Small Rural SDCA in TN Circle; the following is the actual traffic distribution

Month Dec-2010					
Type of calls	Calls	% in total calls	MOU	%in total MOU	Remarks
Local(2,3,4,6 levels)	63038	15.50948707	87494	13.15	
Mobile-IntraCircle	299126	73.59514624	473639	71.18	Can be Booked under NLDO
STD-All 0 dialing	44176	10.86879502	103881	15.61	
ISD	108	0.026571665	309	0.04	Can be Booked under ILDO
Total	406448	100	665323	100	
Month Jan-2011					
Type of calls	Calls	% in total calls	MOU	% in total MOU	Remarks
Local(2,3,4,6 levels)	58032	15.27101633	85167	13.50	
Mobile-IntraCircle	283077	74.49120296	449484	71.26	Can be Booked under NLDO
STD-All 0 dialing	38777	10.20409774	95808	15.19	
ISD	128	0.03368297	252	0.039	Can be Booked under ILDO
Total	380014	100	630711	100	
Month Feb-2011					
Type of calls	Calls	% in total calls	MOU	% in total MOU	Remarks
Local(2,3,4,6 levels)	55589	14.89818453	77238	12.43	
Mobile-IntraCircle	279637	74.94438876	448127	72.12	Can be Booked under NLDO
STD-All 0 dialing	37764	10.1209779	95638	15.39	
ISD	136	0.036448814	291	0.046	Can be Booked under ILDO
Total	373126	100	621294	100	

Even for a small rural area the NLDO traffic exceeds the percentage intimated by corporate office. If a District HQ or town is considered, the difference will be much higher. So by practicing correct revenue segregation we could save huge amount in LF.

Leased Line Revenue:

8. In BSNL, 70% Leased Line revenue are booked under NLDO and 30% under BSO (i.e apportioned). But as per page no1, all the Point to Point, IP, VPN, Leased lines (this includes MLLN, MPLS) can be classified as NLDO. Except ISDN Lines remaining all come under NLDO. But by booking 30% revenue under BSO we are paying extra LF, USO Levy etc.

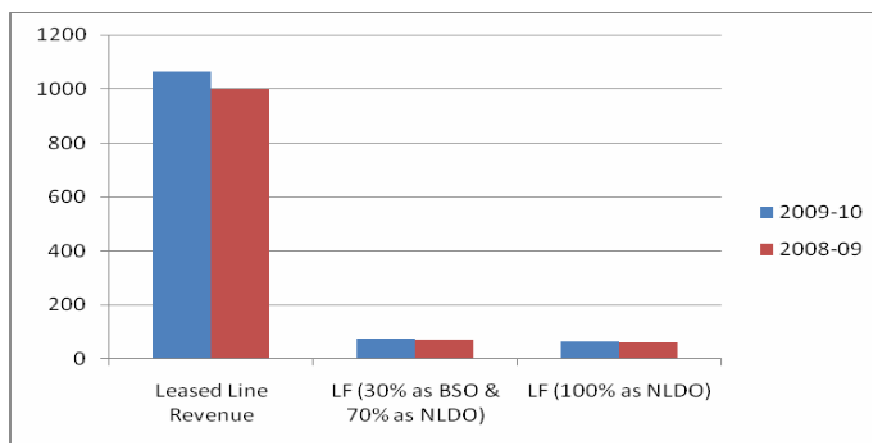


Fig : LF for Leased Line Revenue with different implications (Amt in Cr)
So by adopting the NLDO revenue booking, BSNL Can Save **around Rs 10 Cr per annum.**

Data Services from Revenue CMSP

9. All data services (offered by CDMA 1X, EVDO, 2G and 3G) revenue is being shown under CMSP. So BSNL is paying 10% as LF and 6% as spectrum usage charges on this revenue. But in the first part itself we have seen that a NLDO can offer wired or wireless leased line for data/ internet services. Also for pure internet services there is no LF. By classifying these (2G,3G and EVDO) data services revenue as Internet leased line revenue, the amount can be shown as NLDO revenue. This will enable BSNL to pay lesser LF (i.e 6% for NLDO LF and 6% for Spectrum usage charges instead of 10% as LF and 6% as spectrum usage in CMSP)

In Chennai Circle alone the 3G revenue (for APR 2010 to FEB 2011) is Rs1,64,18,091. If we show this as NLDO & Pure Internet Service the LF & Spectrum is Rs 19 Lakh instead of Rs 26 Lakh (In CMSP). In Chennai circle alone we can save **around Rs 7 Lakh.**

IUC revenue :

10. The entire IUC (PSTN) revenue is booked under BSO, but the IUC revenue is having large portion of NLDO and ILDO. This Revenue is only for SOUTH and EAST Zone circle(s). While calculating the AGR for IUC the amount payable to OLOs will be deducted from revenue obtained from OLOs. (OLO – Other Licensed Operators)

- a. In JAN 2011 the Total IUC (PSTN) Revenue: Rs 5244.28 Lakh
- b. Total IUC Outgoing (Payables to OLO) Rs 4168.73 Lakh
- c. NLDO Component Rs 1545.31 Lakh (i.e above 50KM and some upto 50KM Calls of OLOs)
- d. ILDO Incoming Component Rs 46.4 Lakh
- e. ILDO Outgoing Component (Payables to OLO) Rs 136.4 Lakh

From the above breakup, if we adopt the following procedure for AGR calculation,

The component “a-(b+c+d-e)” can be shown as BSO, which will be -ve so no need to pay LF

The component “c” can be shown as NLDO, it will be $(C * 0.6) = \text{Rs } 92.71 \text{ Lakh}$

The component “d-e” can be shown as ILDO which will be -ve so no need to pay LF

Without the break up the entire component “a-b” will be shown as BSO and the LF is $((a-b)*0.6)$ Around Rs 107.55 Lakh.

So by adopting the correct revenue segregation **we could save Rs 15 Lakh for JAN 2011 month south and east zone alone.** Now you can realize how much BSNL can save for entire year.

From these facts one can understand, that our Corporate office is not clearly guiding the field units. After becoming a Corporate our Delhi office should emulate as a strategic decision making body instead of mere secretariat. Also our circle office should act more than a post office. Since there are no clear guidelines it seems each circle is following different methodologies.

Most of the people while dealing with IUC and regulations are thinking they are very strange to these areas. Some people are telling they are from Transmission or external branches, so they are not aware of this. And some people are telling this is related with technical branches and not with revenue branches. For all of them I can tell one thing, the mobile phone in your hands is a highly sophisticated instrument, your DVD player is a highly technical menu driven instrument but you are handling without any difficult, because you are showing interest on them. You should also show similar interest with BSNL and its rules. Otherwise nobody can save us.

Though I am an obedient student, I need not agree with all the wrong acts of my master

638. அறிகொன்று அறியான் எனினும் உறுதி

உழையிருந்தான் கூறல் கடன்.

The man in place must tell the facts 638

Though the ignorant king refutes.

- Iyan Thiruvalluvan in Couplet No. 638

“Just as elephants are needed to catch more elephants, so does one need wealth to capture more wealth”
- Arthasatra (9.4.27)

Thanks for spending your precious time with this article please.

References

1. Trai Regulations on AGR
2. Licensee agreements of BSO,NLDO,ILDO,CMSP,ISP,IP etc
3. Intranet Portal
4. Dot.gov.in
5. TDASAT orders
6. Trai.gov.in

Acknowledgements

When I came across about USO Subsidy circulars, I recognized that BSNL is claiming very less USO funds from CCA(s) annual reports. So I started preparing documents related with that information, but while compiling that information, I came to know that we are

paying more License Fee. Also one of my Sr-Officer has hinted that our revenue segregation is not matching with industry standards. I am unable to collect the USO related information that much fast, but these LF related information is very handy to collect from the concerned websites. So I decided, first to release LF related document. The USO related will be released shortly. In 05/April/2010 I have published my first paper "BSNL as a PRC outsourcing vendor"; to mark the completion of one year I prepared this article without including USO matter, since enough time is not available.

All these credits go to my well-wishers & gurus. I convey my heartfelt thanks to all the people, who supported me by providing valuable information to bring up this article. Whatever may be the demerits it is because of my little knowledge. I owe the responsibility of any errors in this article and I accept the valuable corrections and suggestions. All credits goes to my BSNL and my well-wishers.

Last but not least if forgot to thank my parents and the almighty BSNL I will never succeed in my life.

07/APR/2011

Chennai-18

About me

I am a 2002 TN Circle recruited JTO, currently working in Chennai IOBAS DC, IT Project Circle of BSNL. Prior to this I worked as JTO-Computer in Vellore SSA of TN Circle. I can be reached by nag.muralidharan@gmail.com and muralidharan@bsnl.co.in

Annexure

Various orders and Regulations

NLDO

LICENCE AGREEMENT FOR NATIONAL LONG DISTANCE SERVICE with Amendements issued on 14/12/2005 (Final NLD license agreement 14/12/2005 page 7)

GUIDELINES FOR ISSUE OF LICENCE FOR NATIONAL LONG DISTANCE SERVICE issued on 14/12/2005 Page 8

2. SCOPE OF THE LICENCE

2.1 This LICENCE is granted to provide SERVICE as defined in Para 2.2 of this LICENCE Agreement on a non-exclusive basis and others can also be granted LICENCE for the same SERVICE.

Provided always that the LICENCOR, of its own or through a designated Authority, has a right to operate the SERVICE anywhere in India.

2.2 (a) The NLD Service refers to the carriage of switched bearer telecommunications service over a long distance and NLD Service Licensee will have a right to carry inter circle traffic excluding intra -circle traffic except where such carriage is with mutual agreement with originating service provider.

(b) The LICENCEE can also make mutually agreed arrangements with Basic Service Providers for picking up, carriage and delivery of the traffic from different legs between Long Distance Charging Center (LDCC) and Short Distance Charging Centers (SDCCs).

(c) In the case of Cellular Mobile Telephone Service traffic, the inter-circle traffic shall be handed/taken over at the Point of Presence (POP) situated in LDCA at the location of Level I TAX in originating/terminating service area. For West Bengal, Himachal Pradesh and Jammu & Kashmir such locations shall be Asansol, Shimla & Jammu respectively.

(d) 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.

NOTE: The list of different Telecom Service Area , which can be modified from time to time for the reasons of reorganization of territorial jurisdiction or administrative convenience, is annexed as Annexure-III.

2.3 It is obligatory upon the LICENCEE to provide the above stated SERVICE of good standard by

establishing a state-of-the-art digital network.

3. DURATION OF LICENCE

3.1 This LICENCE shall come into force on _____
(hereinafter called the Effective Date of the LICENCE) and shall be valid for a period of 20 years.

4. EXTENSION OF LICENCE

4.1 The LICENCOR may extend, if deemed expedient, the period of LICENCE, by 10 years at one time, upon request of the LICENCEE, if made during 19th year of the LICENCE period.

5. FEES PAYABLE

5.1 The LICENCEE shall pay one time non refundable Entry Fee of Rs 2.50crores, before the signing of the LICENCE.

5.2 In addition to entry fee described above the annual licence fee including USO contribution, @ 15% of the Adjusted Gross Revenue (AGR) shall be payable. With effect from 1.1.2006, **the annual licence fee including USO contribution shall be 6% of the Adjusted Gross Revenue.**

5.3 Provided further that the fee / royalty shall be separately paid in addition by the LICENCEE for the use of spectrum and also for possession of wireless telegraphy equipment as per the details prescribed by Wireless Planning & Coordination Wing (WPC) which depends upon various factors such as frequency, hop and link length, area of operation and other related aspects.

Internet service Provider (ISP)

No.820-1/2006-LR Dated: 24th Aug, 2007

GUIDELINES AND GENERAL INFORMATION FOR GRANT OF LICENCE FOR OPERATING INTERNET SERVICES. Page 6 Onwards

1. The one time entry fee of Rs. 20 lakhs for Category-A Internet Service Licence & Rs. 10 lakhs for Category-B Internet Service Licence is to be paid before signing of the licence agreement.
2. An annual licence fee @6% of Adjusted Gross Revenue (AGR) subject to minimum of Rs.50,000/- (Rupees Fifty Thousand Only) and Rs.10,000/- (Rupees Ten Thousand Only) shall be charged for category A & B service areas respectively per annum per licenced service area. The revenues accrued from pure Internet services will be excluded from the definition of AGR for the purpose of computing licence fee.
3. A Financial Bank Guarantee (FBG) of Rs. Ten Lakh for Category 'A' Service Area Licence and Rs. One Lakh for Category 'B' Service Area Licence, valid for one year, is to be provided before signing

of the licence agreement (in prescribed format) (**Annex-III**). Based on AGR, the amount of FBG shall be reviewed annually by the Licensor.

4. A Performance Bank Guarantee (PBG) of Rs. Two crore for Category 'A' and Rs. Twenty Lakh for each Category 'B' service area valid for two years from any scheduled bank in the prescribed form (**Annex-IV**).

5. SCOPE OF SERVICE:

Following services can be provided within the scope of Licence for Internet Service :

- (i) Internet Access: Internet Access is use of any device/ technology/ methodology to provide access to Internet including IPTV. However, the content for IPTV shall be regulated as per prevailing laws.
- (ii) Internet Telephony: Internet Telephony is a service to process and carry voice signals offered through Public Internet by the use of Personal Computers (PC) or IP based Customer Premises Equipment (CPE) connecting the following :
 - (a) PC to PC; within or outside India
 - (b) PC / a device / Adapter conforming to standard of any international agencies like- ITU or IETF etc. in India to PSTN/PLMN abroad.
 - (c) Any device / Adapter conforming to standards of International agencies like ITU, IETF etc. connected to ISP node with static IP address to similar device / Adapter; within or outside India.
 - (d) Internet Telephony is a different service in its scope, nature and kind from real time voice as offered by other licensed operators like Basic Service Operator (BSO), Cellular Mobile Service Operator (CMSO), Unified Access Service Licence (UASL), National Long Distance Operator(NLDO), International Long Distance Operator (ILDO) and Public Mobile Radio Trunk Service (PMRTS).

- (iii) Except whatever is described in condition (ii) above, no other form of Internet Telephony is permitted.
- (iv) Addressing scheme for Internet Telephony shall only conform to IP addressing Scheme of Internet Assigned Numbers Authority (IANA) exclusive of National Numbering Scheme / plan applicable to subscribers of Basic / Cellular Telephone service. Translation of E.164 number / private number to IP address allotted to any device and vice versa, by the licensee to show compliance with IANA numbering scheme is not permitted.
- (v) The Internet Service Licensee is not permitted to have PSTN/PLMN connectivity. Voice communication to and from a telephone connected to PSTN/PLMN and following E.164 numbering is prohibited in India.
- (vi) Unified Messaging Services (UMS) without any additional PBX within the scope of (i) to (ii) above can be provided.
- (vii) The Licensee shall ensure that Bulk Encryption is not deployed by ISPs connecting to Landing Station. Further, Individuals/Groups/Organizations are permitted to use encryption upto 40 bit key length in the symmetric key algorithms or its equivalent in other algorithms without having to obtain permission from the Licensor. However, if encryption equipments higher than this limit are to be deployed, individuals/groups/organizations shall do so with the prior written permission of the Licensor and deposit the decryption key, split into two parts, with the Licensor.
- (viii) Internet Service to any VSAT subscriber (who could be served by a shared hub commercial service provider or captive private VSAT network) can be provided, if the VSAT is located within the service area of the ISP. For this purpose, a direct interconnection of VSAT or VSAT-hub through leased line obtained from an authorised provider to the ISP's node/server shall be permitted only for the flow of Internet traffic. The existing licence for Closed Users Group Domestic (CUG) / Domestic Data Network via INSAT Satellite Systems does not

grant long distance carrier rights to the licensee. The ISP shall provide to the Licensor a monthly statement of VSAT subscribers served with their locations and details of leased line interconnection with the VSAT hub. The VSAT hub, however, need not be located in the service area of the ISP.

6. The licensee shall provide service within 24 months from the date of signing of the licence agreement. Commissioning of service will mean providing commercial service to customers.
7. The company having ISP licence and a net worth of Rs. One Hundred crore or more can only offer IPTV services subject to approval from Licensor. A certificate from Company Secretary or Auditor (certifying the net worth of the company) is to be submitted.
8. Appointment of franchisee (directly or indirectly) outside licensed service area is not permitted.
9. For the purpose of providing the SERVICE, the licensee shall install, test and commission his own suitable equipment within the geographical limit of the service area so as to be compatible with the other service providers' equipment and connect the same to a Gateway owned by a Licensed Internet Gateway Provider / ILDO for routing International Internet Traffic. ISPs are also allowed to set up International Internet Gateway after obtaining security clearance/approval from Authority. ILDOs and International Internet gateway providers providing International Internet bandwidth to ISPs has to install suitable device/devices for blocking of Uniform Resource Locator (URL).
10. Operation of Internet service requires IP address which can have up to 128 bit binary address or higher in future. This address is required for connection on Internet. Typically, it is required for the ports of the routers, other ISP equipments for the lease line connection and for the user end equipments / devices.
11. All subscribers except dial up subscribers have to be within the service area.
12. Direct interconnectivity between two separately licensed ISPs shall be permitted.

- 13.** The licensee may obtain the transmission link on lease from any licensed service provider. If the LICENSEE has in addition, leased or rented other telecommunication resources from any other Telecom Service Provider authorized by the Government of India, purely for the purposes of providing the service and networking its geographically dispersed equipment, such resources will be a matter between the ISP and the service provider(s). The licensee may also establish its own transmission links within its service area for carrying traffic originated and terminated by the subscriber.
- 14.** Resources required for interconnecting the licensee's network to the network of upstream internet access providers or any other service provider licensed by the Authority including time frame for provision of the same, will be mutually agreed between the parties concerned subject to regulation / directions / orders of TRAI / Licensor. The resources may refer to include but not limited to physical junctions, PCM derived channels, private wires, leased lines, data circuits other network elements. The licensee shall apply for and obtain the network resources from the concerned parties. The tariff of such network is outside the scope of this licence agreement. Licensor will have no obligation for such resources from other parties.
- 15.** The validity of licence is initially for a period of fifteen years unless otherwise terminated. If requested by the licensee, extension may be granted by the LICENSOR on suitable terms and conditions for a period of five years or more at a time. The decision of the LICENSOR shall be final in this regard.
- 16.** Access to internet through authorised Cable Operator shall be permitted to ISPs without additional licensing subject to applicable Cable Laws (The Cable Television Networks (Regulation) Act, 1995) as modified from time to time.
- 17.** 'Last mile' linkages shall be freely permitted within local area either by fibre optic or radio communication or underground copper cable for ISPs. In case of radio links, clearance from WPC wing of the DOT shall be required to be obtained by the ISPs.

18. The quality of service shall be as prescribed by TRAI/ Licensor from time to time.

19. Flow of obscene, objectionable, unauthorised or any other content infringing copy-rights, intellectual property right and international & domestic Cyber laws in any form over the ISP's network is not permitted and the ISP is supposed to take such measures as to prevent it. Any damages/claim arising out of default on the part of the licensee in this respect shall be the sole responsibility of the licensee.

The ISP should make available all the billing details of any subscriber on demand by Licensor for upto one year.