Subject: Recommendation of TRAI on Grant of Licences for Basic Service Operators in 15 Vacant Circles and Migration of Basic Service Operators in six Circles from Fixed Licence Fee to Revenue Sharing

I. Background

(i) The Department of Telecom (DOT) made a reference to TRAI in April 1999 seeking the Authority’s recommendations for grant of fresh licences in the 15 vacant Telecom Circles in line with the objectives of NTP’99 i.e. of further opening up of the Basic Services with a view to bringing competitive pressure on the incumbent. In regard to these 15 Circles, the TRAI was requested to make recommendations in regard to the following specific licensing issues.
a) Number of Operators
b) Selection Criteria
c) Licence Fee Structure
d) Other facets of Licence conditions

(ii) Subsequently, a reference was received from DOT in July 99 seeking similar recommendations in respect of new operators to be introduced in the six Circles where one licence each has already been issued. In July 99, existing licencees were permitted by the Govt. to migrate to a revenue sharing regime and recommendations were sought from TRAI in respect of revenue sharing percentage for the existing licencees, who have migrated to the new licensing regime. Both the references are placed at Annex I & II.

(iii) Salient features of the migration Scheme announced by the Government in July 1999, which provided an option to the existing licencees to migrate to NTP 1999 regime.

- The cut off date for change over to NTP-99 regime will be 1st August 1999.
- Additional licences will be issued for Basic Telecom Services in the Service Areas in which existing licencees opt to migrate to the NTP 1999 regime.
- Bids for new licences in these Circles would be invited under the new licensing regime i.e. a one time Entry Fee and percentage share of revenue as licence fee. The number of operators and the percentage share of Revenue would be based on TRAI’s recommendations.
- Existing licencees would pay the same percentage of Revenue as annual licence fee, as applicable to new licencee(s) in the same service area. The licence fee payable upto 31.7.1999, under the previous licence regime would be treated as the Entry Fee for the existing operators. The new operators will bid on the Entry Fee.
II. RECOMMENDATIONS FOR 15 VACANT CIRCLES

A. Number of Basic Service Operators (BSOs) in a Service Area

(i) In regard to determination of number of players, the NTP’99 has laid down following guidelines:

“While market forces will ultimately determine the number of fixed service providers, during transition, number of entrants have to be carefully decided to eliminate non-serious players and allow new entrants to establish themselves. Therefore, the option of entry of multiple operators for a period of five years for the service areas where no licences have been issued is adopted. The number of players and their mode of selection will be recommended by TRAI in a time bound manner. “

(ii) Ideally, the size of the cake i.e. the percentage of the market share, the Basic Service Operators (BSOs) will be able to wrest from the incumbent i.e. DTS/ MTNL should determine the optimal number of Basic Service Operators in a Circle. While formulating its recommendations in regard to opening of the NLD market, the Authority had undertaken such an exercise after obtaining traffic matrix of 40 important cities and based on that, estimated the total market size and economic viability of NLD Operations. However, in case of Basic Services such an exercise is too complicated because of rapidly changing techno-economic environment, widely varying economic parameters such as GDP per capita, disposable income/capita in each Circle, affordability and lack of comprehensive data relating to traffic and demand. However, taking into account the fact that despite three rounds of bidding in the past, no licence could be issued in these Circles, it can safely be inferred that the size of the market is rather limited. This view was expressed by many stakeholders during public consultations also. Even in six Circles, where one licence each has been issued to a private Basic Service Operator, the progress of roll out is rather slow. Apart from the limited size available to the newcomers of the market, another factor which
could inhibit the entry of a large number of players, is the paucity of frequency spectrum, which is a scarce national resource. This will be required by the Basic Service Operators to provide last-mile connectivity if they employ WLL technology. The existing licences for the Basic Services stipulates wireless as the preferred technology for subscriber loop (local loop). Employment of this technology i.e., wireless would appear to be inescapable if quick roll out and connection on demand in congested areas is to be given as per TRAI’s QOS guidelines. Experience has shown that the Right of Way (ROW) is also a limited resource as Highway/ Environmental Authorities do not permit repeated diggings along the Highways/ vacant land with forestation.

(iii) In the light of what has been stated above, the Authority recognises that the market size and the constraints of rolling out local networks in the entire service area may lead to only a few players amongst those who enter the market, remaining economically viable. However, the Authority would not like to pre-determine any number & limit the competition. In line with the latest global trend, the Authority would recommend that it be left to the market forces to determine this number, a process which it believes will be self limiting, in view of the constraints brought out in the previous paragraph. However, in consonance with the guidelines of NTP’99 which require licensing conditions to be such as to preclude non serious players, who may not be interested in the spread of tele-density in Rural and under-serviced Urban areas, and may tend to confine their operations only to the most lucrative pockets of the market, the Authority would recommend laying down stringent criteria for roll out and stipulation of a reasonable level of Revenue share, Entry Fee and Performance Bank Guarantee (PBG).

B. **Selection Criteria**

(i). As discussed in the previous paragraph, the Authority will not like to recommend
imposing any limitation on the number of operators, which will be determined by the market forces. However to eliminate non-serious players, the following licensing conditions are being recommended:

a) Roll out obligation to cover the entire service area, i.e., establishment of at least one Point of Presence (POP) in all the SDCAs of the Circle. The minimum requirement at the end of each phase of execution is indicated in the Section ‘D’. Definition of POP is indicated in Section ‘C’.

b) Indicative Business Plan giving details of funding arrangement for financing the project.

c) Documents to prove the financial soundness of the applicant. Taking into account the estimated market size of the network to be created and the financial strength required to execute a corresponding sized project, the Net-worth of the promoters or combined net-worth of all co-promoters of a Joint Venture should be at least Rs. 1000 Crore for all category ‘A’ and ‘B’ Circles with the exception of Kerala, Punjab and Haryana, where a figure of Rs. 700 Crore is being recommended. For Category ‘C’ Circles, the Authority would like to stipulate a figure of Rs. 500 Crore for bigger Circles such as Bihar, Assam and Orissa. For smaller Category ‘C’ Circles where investments required to roll out the network may be less, a figure of Rs. 200 Crore is being recommended, i.e., for Himachal Pradesh, Jammu & Kashmir and North East. For Andaman & Nicobar Circle, whose service area is much smaller, a figure of Rs. 20 Crore is being recommended.

d) Experience in Telecom Service Sector would be essential for at least one of the co-promoters who should be having more than 30 % of the equity. If there are more than one promoters with experience in Telecom, 30 % of the equity could come from them jointly.
C. Definition of Point of Presence (POP) and recommended arrangements to quickly roll out the network beyond POP

(i) Point of Presence (POP)

The Point of Presence (POP) in its minimum configuration, is an Integrated Local and Transit (ILT) switch of adequate capacity with the associated local, junction and trunk networks, so that the Basic Service Operator (licencsee) is able to cover all urban and rural areas in the SDCA and is able to provide telephone on demand as stipulated in Quality of Service regulation of TRAI.

(ii) Building of Sub-networks by Franchisees to Spread the Network beyond the POP

a) TRAI recognises that for the NTP 1999 tele-density objectives to be achieved, not only adequate Infrastructure in shape of optical fibre backbone and other transmission media is required to be built but also Local Loop often called ‘bottleneck facility’ is required to be extended to all urban and rural areas to reach the customer’s premises. Experience has shown that while the facility based operator may not find it economically attractive to build the last mile in all areas of his operation, he may like to delegate this activity on franchise basis to a local entrepreneur who may be prepared to invest and contribute towards the increase in tele-density in collaboration with the main facility based operator. These entrepreneurs can profitably install a switching node of adequate capacity such as DID PABX or a rural exchange to provide service to the customers as a franchisee of the facility based operator. The facility based operator (i.e. the original licence holder) should have the freedom to choose a franchisee and the terms of the franchise will be settled mutually by negotiations between the two parties involved. The TRAI would provide a model franchise agreement in due course which could form the basis of their negotiations and the
franchise agreement.

b) However, it should be clearly stipulated that the franchiser will have to exercise due quality control on the services provided by his franchisee. It will be his responsibility to ensure that any of his franchisee’s services do not suffer in quality, and it conforms to the Quality of Service (QOS) Regulations stipulated by the TRAI. The equipment used by the franchisee will also have to conform to the TEC/ITU standards. Suitable Network to Network Interface (NNI) standards will be stipulated for proper technical regulation. Continued failure on the part of any of the franchisee to adhere to the QOS stipulation by TRAI and Network to Network Interface (NNI) standards of TEC may adversely affect the licence of the original licencee.

c) While the Basic Service Operator is required to establish at least one POP himself in each SDCA, he may be permitted to franchise sub-networks beyond the ILT to smaller players such as cable service providers, PABX franchisees etc. These smaller players or Service Providers can spread tele-density at block levels or exchange levels within an SDCA, with proper technical & commercial arrangements with the Licencee, as per mutual negotiations.

d) In cases where technical feasibility of Cable Service Providers (CSPs) has been judged by the Basic Service Operator to be adequate and in line with his QOS obligations and subject to what has been stated in paragraph (ii) b. above, BSO may permit CSP franchisees also. This will reduce the burden on him for requirement of funds to be invested in the local network. CSPs with incremental investments can upgrade their cable networks to provide last mile connectivity and contribute to a faster spread of tele-density.

e) To sum up, The Licensor should encourage the Basic Service Operators to function more like a whole saler rather than a retailer of telecom bearer services. The Network
Operator may be encouraged to invite franchisees to install their Switches i.e. PABX / Rural Exchanges, Servers, Intelligent Network (IN) nodes etc. so as to provide large number of tele and supplementary, and enhanced services. It will provide value addition to the facilities engineered by the Licencee. This recommendation is in line with the global trend of increasing competition at the retail level i.e. to have a few facility based operators, but a large number of service providers who in a way resell the bearer services with value addition.

D. Roll Out Obligation

As mentioned at (i) a) of the Section ‘B’, to weed out non serious players, the following minimum pace of Roll out is being stipulated.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Time Period for completion from effective date of licence agreement</th>
<th>Cumulative % of coverage in terms of Point of Presence to be achieved at SDCA level at the end of each phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>2 Years</td>
<td>15 %</td>
</tr>
<tr>
<td>II</td>
<td>3 Years</td>
<td>40 %</td>
</tr>
<tr>
<td>III</td>
<td>5 Years</td>
<td>80 %</td>
</tr>
<tr>
<td>IV</td>
<td>7 Years</td>
<td>100 % *</td>
</tr>
</tbody>
</table>

* See Section E(iv) below for explanation

E. One Time Entry Fee

-
i) Considering the fact that some Circles like Maharashtra which includes the Metro city of Mumbai, are highly lucrative, while some others like Jammu & Kashmir, North East and Andaman & Nicobar have rather limited market potential and other constraints like unstable security environment, different amounts of Entry Fees/ Performance Bank Guarantees for different Circles are recommended.

ii) Entry Fees (EF)/ Performance Bank Guarantees (PBG) as indicated in tabular form in the next para, are recommended for various Service Areas of operation. These are roughly 2% and 8% of the estimated Gross Revenue figures of the incumbent for the year 1999-2000. Actual figures of year 1998-99 at Circle level and overall Revenue for year 1999-2000 have been used for working out the 1999-2000 figures for the Service Areas of operation. Notwithstanding the basis suggested, a certain minimum in this regard will have to be stipulated. Such minimum Entry Fee in this case is recommended to be Rs. 5.0 Crore. Entry Fee for the NLD Services was also recommended by us on similar percentage applied on NLD Revenue of the incumbent.

(iii) The Entry Fee and Bank Guarantee for 15 vacant Circles is indicated below:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Service Area of Operation (Circle)</th>
<th>Category</th>
<th>10% of 1999-2000 Revenue as rounded off</th>
<th>Entry Fee in Rs. Crore</th>
<th>Bank Guarantee Rs. Crore</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Delhi</td>
<td>A</td>
<td>250</td>
<td>50</td>
<td>200</td>
</tr>
<tr>
<td>2</td>
<td>Tamil Nadu including Chennai</td>
<td>A</td>
<td>250</td>
<td>50</td>
<td>200</td>
</tr>
<tr>
<td>3</td>
<td>Karnataka</td>
<td>A</td>
<td>175</td>
<td>35</td>
<td>140</td>
</tr>
<tr>
<td>4</td>
<td>West Bengal including Calcutta</td>
<td>B</td>
<td>125</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>
iv) **Release of guarantee on fulfilment of Roll out obligation**

The bank guarantees provided by the new entrants for guaranteeing fulfilment of their network roll out obligation will be released in phases on the concerned BSO succeeding in meeting his obligations which will be included in the licence. TRAI recommends that the following phasing for network roll-out and release of guarantee may be stipulated.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Time period for completion from effective date of licence agreement</th>
<th>Cumulative % of coverage in terms of point of presence to be achieved at SDCA level at the end of each phase</th>
<th>The % of guarantee that can be released on fulfilment of obligation shown under column 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>2 years</td>
<td>15%</td>
<td>---</td>
</tr>
<tr>
<td>II</td>
<td>3 years</td>
<td>40%</td>
<td>20%</td>
</tr>
<tr>
<td>III</td>
<td>5 years</td>
<td>80%</td>
<td>30%</td>
</tr>
<tr>
<td>IV</td>
<td>7 years</td>
<td>100% *</td>
<td>50%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State</th>
<th>License Type</th>
<th>% Coverage</th>
<th>% Guarantee Released</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerala</td>
<td>B</td>
<td>100</td>
<td>20</td>
</tr>
<tr>
<td>UP(East)</td>
<td>B</td>
<td>75</td>
<td>15</td>
</tr>
<tr>
<td>UP(West)</td>
<td>B</td>
<td>75</td>
<td>15</td>
</tr>
<tr>
<td>Haryana</td>
<td>B</td>
<td>50</td>
<td>10</td>
</tr>
<tr>
<td>Bihar</td>
<td>C</td>
<td>50</td>
<td>10</td>
</tr>
<tr>
<td>Orissa</td>
<td>C</td>
<td>25</td>
<td>5</td>
</tr>
<tr>
<td>Assam</td>
<td>C</td>
<td>25</td>
<td>5</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
<td>C</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Jammu &amp; Kashmir</td>
<td>C</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>North East</td>
<td>C</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Andaman &amp; Nicobar</td>
<td>C</td>
<td>0.1</td>
<td>1</td>
</tr>
</tbody>
</table>
As would be observed, the release of the guarantee is backloaded i.e. heavier towards the end. This is being recommended on purpose so that it works as an incentive to the operators for completing the more difficult part of network expansion. For obvious reasons, the extension of the network to the more difficult and financially less attractive regions, will be taken up by the operators with some reluctance. They will reach such areas generally in the order in which the difficulties in reaching the concerned regions and their financial unattractiveness increases. The difficult areas are, therefore, likely to be reached last. By making the release of the guarantees back-loaded, there will be better chances that the operators do not restrict the extension of their net-works only to the areas preferred by them and leave the comparatively less remunerative/non-remunerative areas largely unserviced.

**The last mile**

In this context, we would like to clarify that it is not our intention that every single operator should have a point of presence (POP) in every single SDCA. Of course, as proposed in the recommended roll out obligations, by the end of the 5th year every BSO, existing or a new entrant, will individually have to achieve 80% coverage in terms of point of presence at the SDCA level. Those who fail, will lose the guarantee amount the release of which is dependent upon fulfilment of the relative obligation i.e. the third phase of the roll out. Beyond this stage, however, it is most likely that only the more unremunerative areas will be left uncovered. The TRAI is of the view that in these areas whereas competition for the incumbent and choice for the consumer must be provided, it is not necessary that every Basic Service Operator who is awarded a licence for the service area, puts up a point of presence in each of its SDCAs. Such compulsion will not be sustainable on economic consideration. It is also not necessary considering the limited service requirements of these
areas. In our view, therefore, it will suffice even if one of the private sector operators extends his services to the area covered by each such SDCA and establishes point of presence therein in addition to the incumbent viz. MTNL/DTS. Therefore, in the residual area if any, beyond the third phase of roll out, it will be treated as coverage by all even if a SDCA is covered by only one of the operators. By the same token if any single SDCA remains uncovered by all operators other than the DTS, the responsibility for such non-coverage will devolve on each one of them individually triggering the relevant default conditions built in the roll out obligation viz. the invocation of the guarantee related to the fourth phase of the roll out. It is likely that in fulfilling 80% SDCA coverage, different operators would cover different parts of each Circle. It is possible that 100% of SDCAs could be covered in this process by the end of 5 years. In that case, the 100% coverage condition would automatically be fulfilled.

The purpose behind recommending such a conditionality is that although every BSO may not be required to put up a point of presence in all SDCAs which are perceived as less remunerative/unremunerative, since 100% coverage must be achieved, the operators may be required to achieve the objective jointly. That being so, if the stated objective remains unfulfilled the responsibility for the failure also will be joint and the guarantee provided by each one of them will be invoked. In case such an eventuality arises other independent means of covering the residual area(s) will be adopted. A tender on special terms may be invited afresh or a service provider may be specially chosen and asked to perform the task on mutually acceptable terms. The amount realised from the invocation of the guarantees provided by the operators who failed to fulfil their obligations, will be utilised for the purpose. This amount is expected to be enough to meet the cost of covering these areas and actually, therefore, it is rather unlikely that the operators in any service area will risk their guarantee amounts and not provide 100% coverage of the area albeit by their joint efforts as indicated above.
It is also recommended that in order to facilitate 100% coverage of all SDCAs in the aforesaid manner, licensor should review the coverage achieved in every Circle by the end of the fifth year. At that stage it would be most desirable to bring all the operators together and demand from them a programme for covering the entire residual area. The progress of the programme may then be monitored regularly and its completion ensured. A machinery would require to be set up/identified for this purpose at the appropriate time.

F. LICENCE FEE in the form of Revenue Share

i) The Authority has considered the question of levying a Licence Fee which will be a certain percentage of the service provider’s total revenue (earned from the activities undertaken by him under the licence), very carefully. The situation here is not as clear cut and without conflicting considerations as in the case of Cellular Mobile Service Operations in whose case the TRAI has already made a recommendation for a revenue sharing of 17% with the licensor. This recommendation was based on a study of the business cases of selected Cellular Mobile Service Operators in the Metros as well as Circles. The study clearly established that in the Indian market, it is a premium service for which the customer has both the willingness and capability to pay the price asked for. As such the business case of Cellular Service provider is strong in most cases permitting him decent returns with good enough room for re-investments in the business and payment of the prescribed licence fee. The same cannot be said of the Basic Service Operators without several qualifications. Providing access is no doubt the component of the telecom network, which consumes maximum capital but assures only small returns. Cost allocated to the more remunerative parts of business and the network portion related thereto is the smaller part of the aggregate DEL cost, making it subject to lower entry barriers and far greater competitive pressures.

(ii) The business case of the Basic Service Operators is, therefore, clearly inferior to
that of those other access providers in the telecom sector. Because of the Universal nature of Basic Service in a developing country like ours, the paying capacity of majority of the Basic Service subscribers is rather limited. In a situation like this, given the task of increasing tele-density, the service provider has to endeavor continually to lessen the gap between the cost of providing the service and its affordability. It would indeed be difficult for him to expand his services substantially unless he succeeds in cross subsidizing the less remunerative segments of his network either directly or indirectly by mechanisms like Universal Access Levy. In the absence of any such arrangement, the service provider tries to be selective in giving connections and tends to indulge in a business practice known as ‘cream skimming’. In some Circles where Basic Service Operators have been introduced, this practice has already appeared on the scene and certainly needs to be curbed in the interest of genuine growth in tele-density and Universal service which implies, service without any discrimination. The Authority is, therefore, of the view that the Licence Fee leviable on the BSOs should be such that works with them as an incentive to keep on expanding their access network and enables them to fulfill the objective of providing telephone on demand throughout their service area. The Authority has also come to the conclusion that ways need to be found particularly to incentivise expansion of rural tele-density.

(iii) It is, therefore, our recommendation that the Licence Fee leviable on the BSOs should cover no more than the requirements of present and projected Universal Service Obligation (U.S.O.), the cost of administration and regulation and a reasonable contribution towards a fund for Research and Development in Telecommunication. This was also the dominant view, which emerged in the course of the Open House discussions held by the Authority in connection with the provision of Basic Services. There was also a pronounced view in favour of having differential Licence Fee in the light of differing revenue generating capacities of the telecom Circles. The Authority has considered this view carefully and finds it reasonable and with merit.
(iv) While examining the issue of Universal Service Obligation (U.S.O.) and the Universal Access Levy (U.A.L.) which will be required to support the desired U.S.O., the Authority had occasion to study the Net Universal Service Cost (NUSC) at length, taking into account the requirements in respect of VPTs, remote/rural Direct Exchange Line (DELs) and low calling urban DELs. Different models have been prepared and projections of requirements made on the basis thereof. These are contained in the Consultation Paper No. 2000/3 dated 3rd July 2000, brought out by the Authority on issues relating to Universal Service Obligations. Extensive public discussions across the country have already been held on this subject and the Authority expects to shortly submit its recommendations in these regards.

(v) The Authority has recommended appropriation of 7% of the Revenue in case of Cellular Service, 5% towards the present Universal Access Levy (UAL) and 2% towards R&D and the cost of administration. The above figure of UAL is tentative and as projections made in the above mentioned Consultation Paper No. 2000/3 indicate, may need to be raised substantially as efforts for increasing tele-density particularly covering rural/remote and low calling urban DELs are intensified. The requirements in respect of NUSC may rise by the year 2006-07 to a figure which may account for nearly 9 to 10% of the telecom revenue that could be expected to be generated at that time. TRAI is presently evolving a plan under which the requirement of UAL will be worked out every year and UAL adjusted accordingly. Such an approach is considered essential to help fulfillment of the tele-density objective outlined in the NTP’1999. TRAI would, therefore, recommend a Licence Fee of 12%, 10% and 8% respectively for the three categories of Circles A, B and C which have been so categorized from the point of view of their revenue generating capacities. This fee will be equally applicable to the new entrants as well as the incumbents including the MTNL/DTS. A graded Licence Fee for Circles is being recommended to improve the attractiveness of the comparative lower revenue generating Circles to the investors by providing a boost in this manner to their respective business cases. The TRAI has noted that out of the total 21
Telecom Circles, 15 have as yet not attracted any investment interest despite three attempts and may remain unattractive to service providers and investors without some special support. A low Licence Fee should provide the needed incentive. In this context, it is pertinent to note that the lower revenue generating Circles will in general qualify for greater support on their U.S.O. activities and thus will claim a larger share out of the Universal Access Levy collected. The U.A.L. contributions made by them by way of the Licence Fee could go back to them entirely and depending upon their performance in extending Universal services, they may be able to claim even out of U.A.L. collected from other service providers.

(vi) The quantum of Licence Fee being recommended is considered just enough to cover the Net Universal Service Cost (NUSC), R&D and administration and regulation expenses as these are likely to emerge by the year 2006-07. At present and until the process of estimating the U.A.L. every year is put in place and becomes operative, the Licence Fee being recommended now will have some balance over the U.A.L. estimates, the current provisional estimate being 7%, as advised by the TRAI earlier. Such excess amount until required for U.S.O. purposes could form part of the Govt. revenue.

(vii) Considering the changing quantum of Net Universal Service Cost (NUSC) and, therefore, the U.A.L., a possible solution would be to keep the Licence Fee variable from time to time depending upon the variation in the quantum of the required U.A.L. Such an approach would, however, inject a certain degree of uncertainty in the project planning and in any assessment of its financial viability. The alternative contained in paragraph F(v.) above has, therefore, been found preferable and accordingly, recommended.
G. Revenue Share Definition

The TRAI recommends the following definition of Adjusted Gross Revenue for the purpose of the Revenue share set out in above paras:

“Adjusted Gross Revenue” for the purpose of levying licence fee as a percentage of Revenue Share shall mean the “Gross Revenue” accruing to the Licencee by way of operations of the Basic Service mandated under the licence (inclusive of Revenue on account of Value-added services, supplementary services, and the sale of handsets) plus Revenue accruing through resellers (if any), franchisees including CSPs etc. plus any Revenue foregone through subsidies on handsets or any other rebates, as reduced by the following items:

i) Interconnection/ Access charges payable to other Service providers for carriage of calls

ii) Roaming revenues collected on behalf of Cellular Mobile Service Providers (if applicable) and passed on or liable to be passed on to them;

iii) Service tax paid or payable;

iv) Proceeds from sale of handsets

H. Other Issues which are relevant to further opening up of the Basic Service market in the country

(i) Resale

The Authority had invited public comments on the issue of resale and the same was discussed during the public consultations. Based on the inputs received and our own deliberations, we would like to state that at the present stage of the development of telecom
network in the country, a mandated unbundling of the local loop may not be feasible. Considering the scarcity of Local Loop, the incumbent operator should not legally be mandated to part with his local loop just now to its competitors at unbundled costs. For one, unbundled costs of different network segments are yet not available and secondly we think, more importantly, such availability of local loop in the early stages of opening up of the Basic Services market is likely to encourage the BSOs not to lay cables themselves and confine themselves to putting up only nodes i.e. Switching elements. The emphasis at this stage has got to be on infrastructure building and engineering of backbone, facilities and networks i.e. both nodes and links (transmission media). Resale is a feature of mature markets where there is an excess of facilities with the incumbent.

Once the market matures and unbundled costs of the network elements are available after accounting separation is completed, the Authority would like to review the situation. By then, the new Basic Service Operators would hopefully have completed three out of the four phases of their stipulated Roll-out obligations and additional network capacities would have been created.

**Infrastructure Providers**

(ii) As stated in the foregoing paragraphs, in the initial phase of liberalisation, the stress should be on building of facilities and infrastructure either by Basic Service Operators themselves or by dedicated Infrastructure Providers (IPs) in the Private as well as the Public sector such as Railways, GAIL, State Electricity Boards, who may already possess or be in a position to acquire the Right of Way. The Authority does not consider it necessary that the operations of these Infrastructure Providers be brought under its regulatory purview. Market forces and rules of economics will play their part in regulating them. TRAI also is of the view that any Infrastructure Provider should not be required to obtain any Licence or pay any fee thereon. This view has been expressed in the context of opening of the NLD market also. If it is felt that Infrastructure Providers would need to obtain a Licence as per Indian Telegraph
Act 1885, either a suitable legal amendment may be made in this regard or if that is not immediately possible, a simple registration as Infrastructure Provider should be considered adequate. The arrangement between Infrastructure and Network Providers should be based purely on commercial negotiations resulting in a relationship of lessor/lessee and tenant/rentor.

**NLD Access Arrangements**

(iii) Suitable access arrangements shall be made available by the Basic Service Operators so that their customers are able to access with equal ease all NLD operators in the respective Circles for carriage of their inter-Circle calls and ISD calls as soon as competition is introduced in that sector. The technical arrangements for such an access either by Carrier Access Code (CAC) or pre-selection shall be made by the BSO in his switching nodes. Such arrangements should be made by BSOs in consultation with the NLD operators. A technical group is being constituted under the aegis of TRAI to finalise these arrangements. Representatives of both BSOs and NLD operators are proposed to be included in the group.

**Billing Services**

(iv). Basic Service Operators should provide billing services to NLD service providers on reasonable terms, which may be negotiated mutually. This would provide convenience to consumers by way of a consolidated bill for their local/long distance services.

(v) Carriage charges in a multi operator environment is generally based on unbundled network element costs. The Authority has started a process of public consultations on Accounting Separation and unbundling of costs of Network elements. It is the objective of the Authority to introduce an access/carriage charge regime based on unbundled costs. Necessary technical and commercial arrangements will have to be negotiated and settled by the operators themselves. However, the Authority would like to act as a facilitator of these arrangements.
arrangements. BSOs and NLD service providers will be required to employ device conforming to CCS7 signaling system so as to generate adequate Call Data Records (CDR for effective inter-carrier settlements under a multi-operator environment based on unbundled Network element costs. Methodology of costing the unbundled elements will be stipulated by the Authority in due course.

**Interconnection with Other Operators**

vi) For effective implementation of a multi-operator regime, new entrant has to get access to all end-users and vice-versa. It shall be mandatory on all BSOs to provide Interconnection to NLD service providers so that the subscribers have the choice to make long distance call through any NLD service provider.

vii) The Network operators i.e. BSO/ NLD Operator would negotiate their Interconnection agreements, which would be subject to review and intervention by the TRAI in case of lack of agreement within sixty days. Each Basic Service Operator will have the right to Interconnect with DTS and other service providers following the principles of transparency and non-discrimination as stipulated by the Authority in its Interconnect Regulation of May’99 and subsequent other regulations which, it might issue in future on the subject from time to time.

viii) Direct interconnectivity among all Service Operators in the same service area of operation should be permitted in accordance with NTP’99 for optimal routing and better Quality of Service. The Numbering Scheme to be followed by various operators in a service area will be specified by the Authority in due course.

ix) **Choice to the consumer for Intra Circle Long Distance Calls**

TRAI would like to reiterate its earlier recommendation regarding introduction of competition in carriage of Intra Circle Long Distance Calls contained in its recommendations dated 13-12-1999 and 15-5-2000 relating to the opening of NLD market. As stated in our
earlier recommendations BSOs should also be given the facility of providing Intra Circle Long Distance service to the subscribers of other BSOs. This will provide consumers the choice in regard to carriage of his Intra Circle Long Distance calls.

**Universal Service Obligation of Basic Service Operators**

$x)$. New Telecom Policy announced in March 1999 mandates provision of telephones in all rural and urban areas on demand. Following specific objectives have been set:

- Make available telephone on demand in all urban and rural areas by the year 2002, and sustain it thereafter, so as to achieve a tele-density of 7 by the year 2005 and 15 by the year 2010
- Increase Rural tele-density from the current level of 0.4 to 4 by the year 2010 in all Rural areas.
- Achieve Telecom coverage of all villages in the country and provide reliable media to all exchanges by the year 2002.
- As part of Universal Service objectives,
  - Provide voice and low speed data services to the balance 2.9 lakh uncovered villages in the country by the year 2002
  - Achieve Internet access to all district head quarters by the year 2000.
  - Achieve telephone on demand in urban and rural areas by 2002.

$xi)$. Recognising that the Universal Service Obligation (USO) may not be fulfilled under normal commercial considerations, as a large number of connections may have to be given below cost, the NTP 1999 has also laid down a mechanism for raising the resources for the purpose by way of U.A.L.. This is to be a percentage of the revenue earned by all the operators under various licences including those of the Basic Service Operators. The role of U.A.L. in the licences granted to BSOs have been discussed and recommended under Section F above covering ‘LICENCE FEE”.
xii) **Access Deficit Charge**

Although reimbursements from Universal Service Levy will be the main vehicle of compensating Basic Service Operators to meet their Universal Service obligation in uneconomic areas. It is also proposed to employ, a methodology called Access Deficit Charge (ADC) to make up the deficit incurred in providing access to Basic telecommunication services. This will form part of the access charge payable by the NLD operator to the Basic operator for conveyance of a long distance call through the access network of the latter. Access Deficit Charge (ADC) is a contribution from the long distance segment to the access network in the interest of sustaining the affordability of Basic Services. The Authority expects to finalise its recommendations on U.A.L and ADC shortly.

xiii) **Accounting Separation**

All incumbent operators including MTNL and DTS at the Circle/Metro level should maintain separate accounts in regard to Basic Service Operations so that a comparative study of their cost allocations and pricing is possible for the purpose of regulatory control and review.

**SECTION III: RECOMMENDATIONS IN RESPECT OF SIX CIRCLES WHERE PRIVATE OPERATORS HAVE ALREADY BEEN LICENCED**

i) The Authority has noted that in six Circles, namely Maharashtra, Andhra Pradesh, Gujarat, Rajasthan, Punjab and Madhya Pradesh licences to private operators have already been issued. Date of grant of licence, with the exception of Rajasthan was 30.9.1997. For Rajasthan, it was 30.3.1998. Having accepted the migration package
offered by the Government, these operators cannot now expect to operate in a market which has limited competition as in the beginning. One of the essential conditions of migration was that multiple players will be permitted in these six Circles also. However, in deciding the post migration terms of licence for these operators, we will have to take into account the fact that the Entry Fee paid by them with the exception of one case will be disproportionately high as compared to the Entry Fee which the new Basic Services Operators will be required to pay for these Circles as per the recommendations contained herein. It may be recalled that in the case of the existing operators the licence fee due under the earlier arrangement, up to the date of migration i.e. 31.7.99 has been reckoned as their Entry Fee. The following table shows the Entry Fee paid by the existing operators along with the Entry Fee recommended for the new entrants in these Circles.

**ENTRY FEE TABLE FOR CIRCLES WITH EXISTING BASIC SERVICE OPERATORS**

<table>
<thead>
<tr>
<th>Circle</th>
<th>Date of Licence Agreement</th>
<th>Amount paid upto 31.7.99 i.e. in the first two years treated as Entry Fee for existing BSOs (In Rs. Crore)</th>
<th>Entry Fee to be paid by new operators in Rs. Crore (**))</th>
<th>Performance Bank Guarantee by new operators in Rs. Crore (**))</th>
<th>Difference in Entry Fee [Column3 – Column 4]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maharashtra including Mumbai (A *)</td>
<td>30.09.1997</td>
<td>795</td>
<td>115</td>
<td>460</td>
<td>680</td>
</tr>
<tr>
<td>Andhra Pradesh (A *)</td>
<td>30.09.1997</td>
<td>241</td>
<td>35</td>
<td>140</td>
<td>206</td>
</tr>
<tr>
<td>Gujarat (A *)</td>
<td>30.09.1997</td>
<td>195</td>
<td>40</td>
<td>160</td>
<td>155</td>
</tr>
</tbody>
</table>
Notes:

* Figures in bracket in Column 1 indicate the Category of the Circle.

** These have been calculated on the same basis as Entry Fees for the other 15 Circles as shown in the Table contained in Section II, E (iii).

ii) While making the comparison, it has also to be kept in view that the performance bank guarantee furnished by the new operators, is not a cash outgo. It is only a bank guarantee which is to be released in phases subject to the operator fulfilling the network roll out obligation stipulated for them in our recommendation. Network roll out is to be completed in phases and specified amounts of the guarantee amount are to be refunded on completion of the stipulated roll out at the end of each phase. Under this arrangement, therefore, subject to the operator fulfilling his roll out obligations, the guarantee will be fully released and the Entry Fee paid by him will be only the amount paid in cash at the time of the issue of the licence. The actual comparison, therefore, is only to be made between the amount of licence fee paid by the existing operators which is to be treated as an Entry Fee and the Entry Fee stipulated by us for new operators. The disparity in the amount of Entry Fee paid, as would be seen from the above table, save in one case, will be about Rs. 150 Crore in two cases, between Rs.200 Crore and 250 Crore in another two cases and nearly Rs. 680 Crore in one case. Even granting that the existing Basic Service Operators had earlier made a commitment for paying a certain amount of licence fee and that the permission to them to migrate to the revenue sharing regime under NTP '99 is a

<table>
<thead>
<tr>
<th>Circle</th>
<th>Date</th>
<th>Category</th>
<th>Roll out</th>
<th>Licence Fee</th>
<th>Bank Guarantee</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP (B *)</td>
<td>30.09.1997</td>
<td>38</td>
<td>20</td>
<td>80</td>
<td>18</td>
</tr>
<tr>
<td>Punjab (B *)</td>
<td>30.09.1997</td>
<td>265</td>
<td>20</td>
<td>80</td>
<td>245</td>
</tr>
<tr>
<td>Rajasthan (B *)</td>
<td>30.03.1998</td>
<td>160</td>
<td>20</td>
<td>80</td>
<td>140</td>
</tr>
</tbody>
</table>
very special consideration shown to them, the fact remains that the new entrants by paying a substantially lower Entry Fee will acquire an undue competitive advantage over them. Such a situation is indeed not conducive to proper and fair competition and some remedy needs to be found against a situation which will give undue advantage to the new operators. They will be entering the market with much lower Entry Fee enabling them to resort to anti-competitive practices such as predatory pricing. Such a market scenario may not be in the consumer’s interests in the long run. In all fairness, the existing operators should be provided a level playing field and opportunities for fair competition vis-à-vis the new entrants. One feasible solution could have been to stipulate Entry Fee for these Circles for the newcomers also at the same level at which the existing operators have paid. However, in view of the big amounts paid by the existing operators, such a step could create an entry barrier which may not be in the interest of promoting competition which will ultimately benefit the consumers.

iii) Under the circumstances, it is recommended that while in the interest of introducing effective competition, these six Circles also may be opened to free competition like the other 15 Circles at the same point of time, in the interest of maintaining an economic level playing field, some justified relief be extended to the existing Basic Service Operators, in cases where the difference between the Entry Fee paid by them and payable by the newcomer is such that it becomes an undue advantage to the latter and provides him with opportunities to resort to anti-competitive practices. Therefore, while there is no question of reviewing the Licence Fee already paid by the existing Basic Service Operators, where the disparity is very large, say more than Rs.100 Crore, they may be given some relief to bring them at par with the new entrants. It is therefore recommended that in all cases where the disparity between the Entry Fee paid by the existing Basic Service Operator and the newcomer in the same Circle is more than Rs. 100 Crore, the licence fee payable by the existing
operator may be waived for a limited period. This will not bring them at par in terms of initial investment with the new service providers but considering the advantage of their early entry into the market, will enable them to nurture and maintain the competitiveness of their business. This arrangement may be continued for a period of four years beginning from the date on which migration has been permitted to them, i.e. 1.8.1999. As one year of this period has already elapsed, the advantage will be available to them for nearly the next 3 years, by which time if they properly leverage their initial advantage of being the sole basic service providers in addition to the incumbents, i.e. MTNL/DTS, they can consolidate their position much better and succeed in largely neutralising the advantage accruing to the new comers by way of lower Entry Fee.

iv) This facility is, however, not proposed to be extended to the existing BSOs unconditionally. Like the new entrants, they will also be given a roll out plan and the continuance of the facility will depend upon fulfilling these obligations. It has been observed that the network roll out in the case of most existing BSOs has been tardy and despite owning their licences for more than three years, they have a very limited number of DELs to their credit. The coverage in terms of network extension also is quite limited and the special obligations in respect of VPTs have remained almost totally unfulfilled. It is, therefore, proposed that beginning from the date of migration, their network obligation be determined as under:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Time Period for completion from effective date of Licence Agreement</th>
<th>Cumulative % of coverage in terms of Points of Presence to be achieved at SDCA level at the end of each phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Upto 2 years</td>
<td>30</td>
</tr>
</tbody>
</table>
The proposed roll out obligation is in line with the roll out obligation of the new entrants but has been modified suitably taking into account the lead the existing operators have and what they should have done by now.

v) The proposed waiver in respect of the licence fee which is not unconditional, in any case, will not extend beyond the 4th year (from the date of migration). It is proposed to stipulate that the existing service providers who fail to fulfil the above roll out obligation will forfeit the facility from the end of the year in which they fail to perform as per the obligation. This condition is being stipulated so that the concerned BSOs make extra efforts to achieve the stipulated roll out of their networks. If they perform accordingly, they will also be able to extend their network faster than their new competitors and will be able to convert the advantage of their early entry into real good business which could wipe out the disadvantage of the comparatively higher Entry Fees paid by them. From the licensor’s side this waiver should be seen not as any loss of revenue, as that has already been received by way of the much higher Entry Fee paid by the concerned operators but really as incentive for faster roll out and quicker introduction of competition in the market.

ANNEX- I

Government of India
Department of Telecommunications
Sanchar Bhawan, 20, Ashok Road,
New Delhi – 110001

No. 10-6/99-BS-I Dated 23rd April, 1999

To,

The Secretary,
Telecom Regulatory Authority of India,
Jawahar Vyapaar Bhawan,
Janpath,
New Delhi.

Subjects: Recommendations of TRAI on issue of fresh licences for Fixed Service Providers.

Dear Sir,

The New Telecom Policy 1999 announced on 26.3.99 envisages the entry of multiple operators for a period of five years for the service areas where no licences have been issued. The number of players and their mode of selection are to be recommended by TRAI in a time bound manner. The Policy also envisages that the Fixed Service Providers (FSPs) licencees shall pay one time Entry Fee and licence fee in the form of a revenue share. The appropriate level of Entry Fee and the percentage of revenue share and the basis of selection of new operators would be recommended by the TRAI.

2. Out of the 21 Telecom Circles, licences have been issued for 6 Circles namely, Andhra Pradesh, Madhya Pradesh, Gujarat, Maharashtra, Punjab and Rajasthan. In respect of 7 Circles, Letters of Intent were issued but the licences have not been signed. These 7 Circles are Delhi, Haryana, U.P. (West), Orissa, Tamilnadu, Karnataka and Bihar. The remaining 8 Circles namely, Andaman & Nicobar Islands, Assam, North East, Himachal Pradesh, J&K, U.P. (East), Kerala and West Bengal are vacant.

3. It is requested that recommendations of the TRAI for the issue of fresh licences in the vacant Circles may be made in a time bound manner at the earliest, keeping in view the objectives of the New Telecom Policy on (i) Number of private service providers in a Circle besides DOT; (ii) Selection criteria; and (iii) Licence Fee structure. The recommendation should also include other facets of licence conditions.
4. It would be appreciated if TRAI can indicate the time by which these recommendations would be made available to the Government.

Yours faithfully,

Sd/-

23.4.99
(N. Parmeshwaran)
Deputy Director General (BS)

GOVERNMENT OF INDIA [ANNEX- II]
MINISTRY OF COMMUNICATIONS
DEPARTMENT OF TELECOMMUNICATIONS
(VAS CELL)


To

The Secretary,
Telecom Regulatory Authority of India,
Jawahar Vyapaar Bhawan,
Janpath,
New Delhi.

Subjects: Recommendations of TRAI in regard to licence fee arrangement for migration of the existing operators of Cellular Metros, Cellular Circles and Basic Services to NTP-99 regime.

Dear Sir,

I am directed to inform that pursuant to announcement of New Telecom Policy-1999 (NTP-99), the Government have now taken the following decisions.

(i) Permit migration of existing licencees or Cellular, Basic and other Value Added Telecom Services to NTP-99 regime. Under the scheme of migration, it is the Government’s intention to issue additional licences early for Cellular as well as Basic
Telecom Services in the Service Areas in which the existing licencees opt to migrate to NTP-99 regime.

(ii) In the case of Cellular Services, as present availability of spectrum DOT/MTNL will be the third operator. DOT/MTNL would pay licence fee as per NTP-1999. In addition there will be one more private operator; bid for this licence will be issued on the new licensing regime i.e. a one time Entry Fee plus percentage share of revenue as licence fee; decision on the percentage share of more licences in future would be decided based on emerging scenario of Spectrum availability and based on recommendations of TRAI (as per NTP-99, TRAI will review this as required and no later than every two years).

(iii) In the case of Basic Telecom Services, bids for new licences to be invited on the new licensing regime i.e. one time Entry Fee plus percentage share of revenue as licence fee; decision on numbers of operators and the percentage share of revenue to be taken on receipt of TRAI’s recommendations.

(iv) The cut off date for change over to NTP-99 regime for the existing Cellular and Basic Service Operators will be 1.8.1999. Starting from this date, the percentage of gross revenue to be paid towards licence fee will be the same as would apply in future to the new licencee(s) in the same service area. The licence fee dues payable upto 31.7.1999 would be treated as the Entry Fee for the existing operators. The new operators will bid for the Entry Fee.

2. In the light of the above decisions of the Government any keeping in view the earlier references sent to TRAI vide letter No.842-153/99-VAS/Vol.IV dated 23.4.1999 regarding CMSP licences and No.10-6/99-BS.I dated 23.4.1999 regarding Basic Service Licences and also keeping in view the time frame of migration, TRAI may kindly provide their
recommendations on an urgent basic regarding the licence fee arrangement (revenue share) for the existing Cellular Metros, Cellular Circles and Basic Service Operators to be made applicable to them on migration with effect from 1.8.1999 (the same percentage of revenue share will be made applicable to the new Licencees of Cellular Metros, Cellular Circles and Basic Service respectively.

3. I am, therefore, directed to request the following:

(a) Recommendation of TRAI as per para 2 above, may kindly be provided latest by this date, the Government will take interim decision to fix up an appropriate percentage of gross revenue as per the provisional licence fee to be adjusted retrospectively as per final Government decision to be taken on receipt of recommendations of TRAI. This will enable the Government to implement the policy decision for migration of the existing licencees to NTP-99 regime with effect from 1.8.99.

(b) The recommendations regarding the number of new operators for Basic Telecom Service as sought under letter No.10-6/99-BS.I dated 23.4.1999 may be expedited.

(c) Other relevant recommendations in regard to Basic Telecom Services as sought under letter No.10-6/99-BS.I dated 23.4.1999 and Cellular Services vide letter No.842-153/99-VAS/Vol.IV dated 23.4.199 may also be provided.

Thanking you,

Yours faithfully,

Sd/-

(N. Parmeshwaran)

DEPUTY DIRECTOR GENERAL (LR)