

RECOMMENDATIONS ON UNIFIED LICENSING

Executive Summary

1.1. The New Telecom Policy 1999 (NTP'99) recognised that convergence of markets and technologies is a reality that is forcing realignment of the industry. At one level, telephone and broadcasting industries are entering each other's markets, while at another level, technology is blurring the difference between different conduit systems such as wireline and wireless. In line with NTP'99 and to keep pace with technological and market developments, the Authority considers that Unified Licensing Regime should be introduced in India. This would build economies of scale and scope and enhance competition. As a result, better services would be made available to the consumers at cheaper price.

1.2 The key objective of the Unified Licensing Regime is to encourage free growth of new applications and services leveraging on the technological developments in the Information and Communication Technology (ICT) area. Other main objectives of the Unified Licensing Regime are to simplify the procedure of licensing in the telecom sector, ensure flexibility and efficient utilisation of resources keeping in mind the technological developments, encourage efficient small operators to cover niche areas in particular rural, remote and telecommunication-facilities-wise less developed areas and to ensure easy entry, level playing field and 'no- worse off' situation for existing operators.

1.3 It may be recalled that Telecom Regulatory Authority of India (TRAI) had issued draft recommendations on 'Unified Licensing Regime' on 06.08.2004 with the aim to gather the comments of stakeholders, if any, for implementation of Unified Licensing Regime for all telecom services.

1.4 It may also be recalled that TRAI in its Unified Licensing recommendations dated 27th October 2003 had envisaged a two-stage process to introduce a Unified Licensing Regime in the country. The first phase that entails a Unified Access Service License (UASL) at circle level has already been implemented. Once the broad framework was decided and put in place, the TRAI began consultation on the implementation of second phase of Unified Licensing Regime. A preliminary consultation paper, final consultation paper and subsequently draft recommendations on 'Unified Licensing Regime' were issued to obtain comprehensive inputs from all the stakeholders. Open House Discussions were also held in this regard. Based on the comments received in the consultation process and its own analysis TRAI has finalised its recommendations of Unified Licensing Regime in India.

1.5 Salient features of TRAI's recommendations are as follows:

- i) Framework of Unified Licence:
 - a) There shall be four categories of licenses:

- **Unified License** - All Public networks including switched networks irrespective of media and technology capable of offering voice and/or non-voice (data services) including Internet Telephony, Cable Television (TV), Direct To Home (DTH), TV & Radio Broadcasting shall be covered under this category. Unified License implies that a customer can get all types of telecom services, from a Unified License Operator. The operator can use wireline or wireless media.
- **Class License** - All services including satellite services, which do not have both way connectivity with Public Network, shall be covered under Class license. This category excludes Radio Paging and Public Mobile Radio Trunking Systems (PMRTS) Services and includes Niche Operators.
- **Licensing through Authorisation** - This category will cover the services for provision of passive infrastructure and bandwidth services to service provider(s), Radio Paging, PMRTS, Voice Mail, Audiotex, Video Conferencing, Videotex, E-mail service, Unified Messaging Services, Tele-banking, Tele-medicine, Tele-education, Tele-trading, E-commerce, Other Service Providers, as mentioned in NTP'99 and Internet Services including existing restricted Internet Telephony (Personal Computers (PC) to PC; within or outside India, PC in India to Telephone outside India, IP based H.323/SIP Terminals connected directly to ISP nodes to similar Terminals; within or outside India), but not Internet Telephony in general.
- **Standalone Broadcasting and Cable TV licence** – This category shall cover those service providers who wish to offer only broadcasting and/or cable services.

b) This licensing framework except stand-alone Broadcasting & cable TV services shall be hierarchical in nature with Unified Licence being at the highest hierarchical level. Such a licensing regime would enable a licensee to provide any or all telecom services by acquiring a single license.

c) In the New Licensing Regime there shall be no restriction on usage of Internet Telephony or other IP enabled services provided they are offered by operators with Unified License who have duly paid the prescribed registration charges and who will be subjected to license fees. With this India will join a group of more than 80 countries where Internet Telephony is permitted. In the interest of security, suitable monitoring equipment as may be prescribed will be provided by the licensee for monitoring as and when required by the licensor.

d) Stand alone licenses for Broadcasting Services would continue to be issued. The prevailing process of issuing of such a license by I&B Ministry (including allocation of spectrum in consultation with WPC) would also continue. If a unified licensee wants to offer 'Broadcasting Service', the licensee will have

to apply to the I&B Ministry in case such clearance is required and fulfill other requirements as prescribed. The content in any case, would be regulated by I&B Ministry.

The Authority noted that broadcasting services have an existing regime with terms & conditions different from those encompassed in the general framework of Unified Licensing. Moreover, it was noted that there are some Broadcasting Recommendations of the Authority already under consideration by the Government. Therefore, the preferred change to the overall framework of the Unified License, in the case of Broadcasting, would require further adjustments. The Authority expects the Government to take account of the framework which has been specified here, in its consideration of the Recommendations which have earlier been provided on Broadcasting. The decision of the Government in that context will give the basis for further assessment by the Authority to develop a transition towards a comprehensive License regime with Broadcasting being treated under the broad framework of Unified Licensing itself, consistent with the principles applied for other services under this framework. Therefore, Authority considered that at this stage it will be appropriate as a transition arrangement to keep this service as a separate category under unified licensing regime for ease of implementation and administration of the recommended unified licensing regime.

e) **Niche Operators** - To increase penetration of telecom services in rural / remote / backward areas from telecom point of view, Authority recommends that SDCAs where fixed rural tele density is below 1% shall be area of operation for Niche Operators. Niche Operators shall be permitted to offer fixed telecom services including multimedia, Internet telephony and other IP enabled services only in these SDCAs. These operators shall however, be permitted to use wireline/fixed wireless networks. This definition of niche operators shall be reviewed depending upon market conditions and development of various technologies and various applications.

ii) **Service Area:** Depending upon the choice of service provider it could be national level or circle level (same as in UAS regime). For niche operators it would be at SDCA level.

iii) **Rollout Obligations:** For access services UASL rollout obligations shall continue under Unified Licensing Regime. For National Long Distance services, it is recommended that the licensee shall make an arrangement to pick up/handover long distance traffic of his subscribers in all service areas. In the absence of carrier preselection or call-by-call selection, it shall be the responsibility of the Unified Licensee/access service provider at originating end to ensure completion of calls to all destinations in the country. Once carrier pre-selection (CPS) is implemented, it will be the responsibility of the unified licensee/NLD operator(s) to complete all the calls of subscriber(s) who has/have pre-selected this licensee as a carrier of their choice. Inter-service area traffic could be handed over/picked up at the choice of Unified Licensee/NLDO either at

a central location or LDCA. The traffic could also be handed over/picked up at SDCA level with the mutual consent of interconnecting service providers. For ILD services existing roll-out obligations would continue. This level of handover/takeover of inter service area traffic is mentioned here only to the extent that it affects the roll-out obligations for NLD services, however, detailed regulation on Interconnection which includes level of traffic handover between various operators, shall be brought out by TRAI separately from time to time as required.

iv) **Bank Guarantees:** Performance Bank Guarantee (PBG) for Unified License will be as per UASL. There shall be no PBG for Class License and 'Licensing through Authorisation'. For NLD/ILD operators and UASLs who do not migrate to Unified Licensing Regime, the existing PBG shall continue.

v) **Spectrum:** Spectrum related issues including spectrum pricing and its allocation are already being dealt with separately and depending upon the comments received during consultation process and TRAI's own analysis the spectrum recommendations will be finalized. In the interim period till spectrum guidelines are issued by the Government of India, the existing spectrum pricing and allocation procedures will continue.

vi) **License Fee:**

a. For Unified License, Class License and Niche operators the License fee shall be (contribution to USF (5%) + Administrative cost (1%)) i.e. 6% of Adjusted Gross Revenue (AGR). The administrative cost is required for managing, licensing and regulating the sector. It is recommended that with technological developments, flexibility in the licensing regime, deployment of more and more wireless technologies and the growth of telecom services even in backward areas from telecom point of view, the Government may consider reviewing the level of USO levy and Administrative fee. Services licensed through Authorisations shall not be required to pay any License fee.

b. AGR shall include only the revenue accrued out of telecom services and shall not include sale of capital goods, sale of handsets, dividend and interest earned on various deposits. To ensure that bundling of handsets with tariff schemes is not misused, the existing provision of tariff schemes with bundling to be made available to subscribers even without bundling, shall continue.

c. All the licensees shall maintain separate accounts for every service and product/network service for each of the licensed areas as per TRAI's Regulations from time to time.

vii) **Registration Charges:**

a. For Class license, niche operators and services licensed through Authorisations, there shall be no Registration Charge.

- b. For Unified License the Registration charge shall have two components, besides initial spectrum charge.
- Registration Charges based on entry fee paid by NLD and ILD operators: Basis shall be entry fee paid by long distance operators (NLD plus ILD) which will be discounted on pro rata basis for the period for which license has been used. Based on above, the entry fee for long distance component shall be Rs. 107 crores.
 - Registration Charges based on entry fee paid by new Basic Service Operators (entered in/after 2001): This component shall depend upon the Service area(s)/Circle(s) where the Unified Licensee wishes to offer access services. Basis shall be entry fee paid by new BSO (entered in/after 2001) multiplied by the ratio of all India fixed subscribers (both wireline and WLL (F) subscribers included) to the total (fixed plus mobile) subscriber base of these Pvt. operators. Subscriber base of private BSO entered in/after 2001 shall be considered for this purpose.

Registration Charges for a circle = Entry fee paid by BSOs (entered in/after 2001) of the circle X

$$\frac{\text{Total (all India) fixed subscribers (wireline + WLL(F))}}{\text{Total (all India) subscribers (fixed and mobile)}} \left| \begin{array}{l} \text{of the New BSOs} \\ \text{entered in/after} \\ \text{2001} \end{array} \right.$$

To calculate this component of registration charges the data of number of subscribers of previous quarter from the date of acceptance of TRAI's recommendations could be taken as a basis. WLL (M) subscribers will be treated as mobile for this purpose.

- c) Spectrum charges, including initial spectrum charge for entry, wherever applicable, would be extra.
- d) Registration charges for Unified license should be gradually reduced from the recommended level to Rs. 30 lakhs after 5 yrs (starting from the date of implementation of ULR). This decrease would be non-linear with lesser reduction in the initial years.

viii) **Reselling:** The Authority recommends that reselling should not be permitted at this stage. However, franchise and sharing of infrastructure among service providers should continue to be implemented.

ix) **Migration: Optional or Compulsory:** It is recommended that migration of the existing service providers to the ULR may be optional. However, after a period of 5 years it shall be mandatory for all telecom operators to migrate to Unified Licensing Regime.

x) Till Unified Licensing Regime comes into effect the operator is free to take UASL in any circle and this situation should continue till two year of implementation of Unified Licensing Regime.

xi) This period of two years would also be available for all other existing services. **After this period of two years no new service specific license including Unified Access License, as in the existing licensing regime, shall be issued and all new Service Providers shall be licensed under new Unified Licensing Regime.**

xii) It shall be mandatory for the Unified licensee to provide interconnection to all eligible Telecom Service Providers (eligibility shall be determined as per the service provider's license agreement and TRAI's determination/orders/regulations issued from time to time) as well as Unified Licensees to ensure that the calls are completed to all destinations and when carrier preselection is introduced the subscribers could have a free choice to make inter-circle/international long distance calls through other operators. Principles of non-discrimination shall be followed in the matter of interconnection.

xiii) The Authority has also noted that there is adequate competition in all service areas, which is expected to ensure completion of calls in all services areas. All service areas including North East, Assam and J&K have at least 3 licensed access (both fixed and mobile) service providers.

xiv) The Authority, while deciding the recommendations on Unified Licensing regime, have kept in mind the issues of level playing field and 'no worse off' situation for existing NLD operators since a unified licensee will be free to offer any telecom service including long distance services which cover inter-service area connectivity also. By fixing Registration fee of unified licensee equal to discounted fee of long distance operator plus a component based on entry fee paid by new Basic Service Operators (entered in/after 2001), the level playing field between existing NLD operators and the unified licensee is maintained. Regarding the effect on the business case of existing NLD operators, it is pertinent to note that right from the time of opening of long distance services for private sector participation, open competition with unlimited number of players is permitted. Regarding the already rolled out network by existing NLD operators, it is pertinent to note that existing NLD operators still have to rollout around 60% of their network and any relaxation in rollout obligations (as recommended in ULR)

at this stage is substantially advantageous to them also. Secondly, transmission system installed by them is not exclusively for NLD services, and most of the existing NLD operators are integrated operators and their transmission system is shared for different services being offered by them under different licenses. In addition, the license fee for long distance service (both NLD and ILD) is reduced from the existing level of 15% to 6% (contribution to USF(5%) + Administrative cost (1%)).

In Authority's opinion this should address the issue of level playing field between existing long distance operators and other service providers.

xv) Salient features of the Unified Licensing Regime are shown in the table 1 below.

Table 1 Unified Licensing Regime at a Glance

Licensing Category	Types of service	Registration Charge (Entry Fee)	License Fee	Bank Guarantees	Service Area	Roll-out obligations
Unified License	All telecom services including Basic, Cellular, Unified Access Service, NLD, ILD, GMPCS, Cable TV, DTH, TV and Broadcasting Services, Internet Telephony, etc. and all services covered under class license, 'Licensing through Authorisation' and standalone Broadcasting & Cable licences.	Registration charge# shall be Rs. 107 crores <u>plus</u> a function of BSO's (entered in/after 2001) entry fee depending on the Service area(s)/Circle(s) where the Unified Licensee wishes to offer access services. Rs. 107 crores is the discounted value of NLD +ILD entry fee. The total registration charge shall be gradually reduced from the recommended level to Rs. 30 lakhs after 5 yrs.	6% of Adjusted Gross revenue (AGR) i.e. Contribution to USF (5%) + Administrative cost (1%). As the sector revenues grows, the Government may consider reviewing the level of USO levy and Administrative fee	Performance Bank Guarantee (PBG) for Unified License will be as per UASL. For NLD/ILD operators and UALs who do not migrate to Unified Licensing Regime, the existing PBG shall continue.	National level or circle level (same as in UAS regime).	For access services: UASL rollout obligations For National long distance services, the licensee <u>shall</u> make an arrangement to pick up/handover long distance traffic of his subscribers in all service areas. Inter-service area traffic could be handed over/picked up at the choice of Unified Licensee/NLDO either at a central location or LDCA. The traffic could also be handed over/picked up at SDCA level with the mutual consent of interconnecting service providers. For ILD services existing roll-out obligations would continue.
Class License	Services covered under 'Licensing through Authorisation', VSAT Services and Niche operators*	Nil	6% of Adjusted Gross revenue (AGR) i.e. Contribution to USF (5%) + Administrative cost (1%). As the sector revenues grows, the Government may consider reviewing the level of USO levy and Administrative fee.	Nil	National level or circle level (same as in UAS regime). For niche operators service area would be at SDCA level.	Nil
Licensing through Authorisation	IP-I, IP-II, Radio Paging, PMRTS Services and Internet services (along with existing restricted internet telephony)	Nil	Nil	Nil	National level or circle level (same as in UAS regime).	Nil
Standalone Broadcasting and Cable Licenses	As at Present					

* Niche operators would be allowed in SDCAs where fixed rural teledensity is below 1%. Niche operators shall be permitted to offer fixed telecom services including multimedia, Internet telephony & IP enabled services only in these SDCAs. These operators, shall however, be permitted to use wireline/fixed wireless networks.

Integrated operators will not pay any registration charge (entry fee) for migration to Unified License.

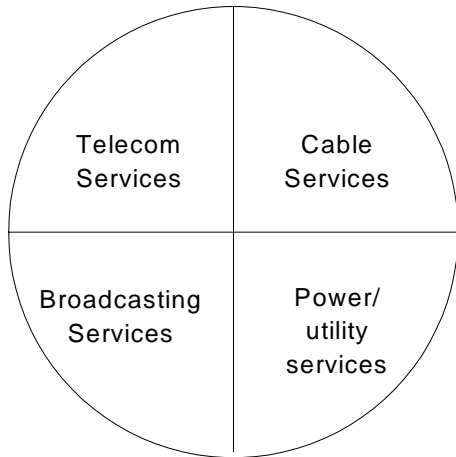
RECOMMENDATIONS ON UNIFIED LICENSING

As per section 11(1) (a) (i), (ii), (iv) and (vii) of TRAI (Amendment) Act, 2000 the Authority makes the following recommendations:

1.0 Introduction

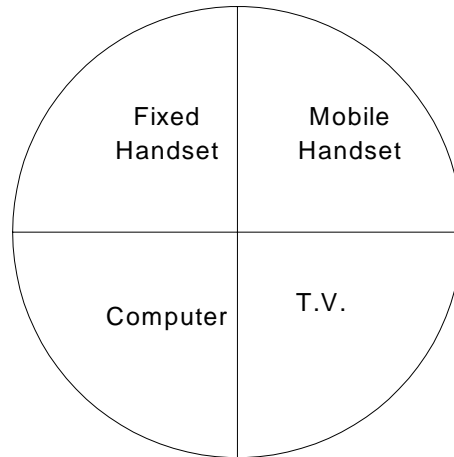
1.1 Different forms of information, namely voice, video and data (further categorized as pre-recorded or live/real-time, and still or moving images) have historically used different delivery networks for the carriage of information, which, in turn, was accessed through different end-user equipment. Initially telephone networks delivered voice on copper wire networks to subscribers on handsets, corporate networks delivered data to computers, and broadcast networks used airwaves, coaxial cable to deliver images or video to televisions. Each service had been tightly linked to a specific form of infrastructure and end-user equipment. With technological and market developments this scenario is changing. Different aspects of convergence are shown in chart 1. The feature of convergence is that one type of service provider may provide the service which hitherto has been provided by another type of service provider (Circle 'a'). In this manifestation of convergence when services are defined as telecommunication services, cable services, broadcasting services, etc, it is now becoming possible for a telecommunication service provider to offer broadcasting services or cable service provider to offer telephony. Likewise, convergence also occurs when through the increasing intelligence and software embedded in Customer Premises Equipment (CPE), the need for multiple customer premises equipments is disappearing. This is illustrated in Circle 'b'. Convergence of transmission media or the mode of delivery is yet another form of convergence which is illustrated in Circle 'c'. Finally, a market related convergence also occurs (illustrated in Circle 'd') whether due to consumer expectation of one-stop service availability, various aspects of service provisioning like bundling of services, right price packages, etc. are getting integrated into one single package.

Service Providers



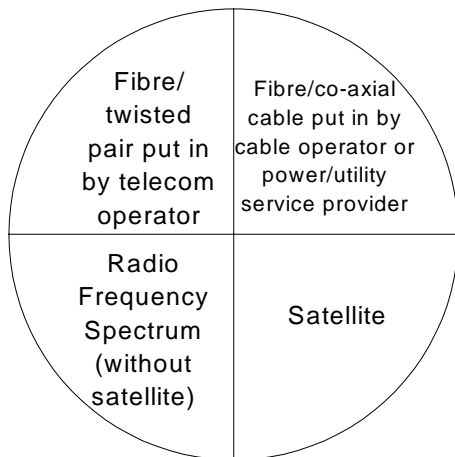
Circle (a)

Equipment for receiving the service



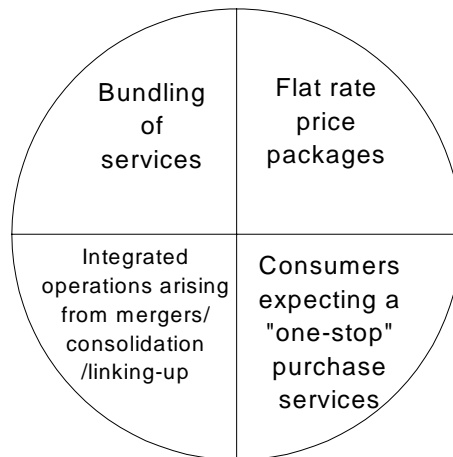
Circle (b)

Modes of delivery of service



Circle (c)

Market related developments



Circle (d)

Chart 1 Different Aspects of Convergence

Each aspect of convergence represented by the various circles in Chart 1 are beginning to overlap and the lines between each circle are now blurring more and more over time. Ultimately, convergence would be characterised as a single circle encompassing most of the portions of the individual circles. This implies, one single license could authorize a licensee to offer any of the various specific services using any transmission media, any type of Customer Premises Equipment (CPE), etc. These changes have implications for the types of

regulatory policies necessary for promoting growth of the telecommunication and ICT sector in a converged environment, and for the scope of functions and activities of regulatory bodies, including licensing service providers.

1.2 So far, regulators and policy makers in telecom were used to dealing with clearly defined technologies, but technologies like IPTV has blurred the traditional distinctions between television, internet and cable. If a telecom company deploys IPTV offering 100s of TV channels on the same media, would it be called a cable company or a telephone company – the company could be called both.

1.3 The New Telecom Policy 1999 (NTP'99) recognised that convergence of markets and technologies is a reality that is forcing realignment of the industry. At one level, telephone and broadcasting industries are entering each other's markets, while at another level, technology is blurring the difference between different conduit systems such as wireline and wireless. It also recognised that the old frame-work specified in NTP'94 was inadequate and/or no longer suited to the developments that had occurred since then. NTP, 1999 had also specified Cable Service providers as one of the categories of Access providers for telecom services.

1.4 In line with NTP'99 and to keep pace with technological and market developments, the Authority considers that Unified Licensing Regime should be introduced in India. This would enable the provision of various services, both existing and new, by the service providers without the need for separate additional licenses, with the same media being used for different services which would build economies of scale and scope. As a result, better services would be made available to the consumers at cheaper price.

1.5 At this stage, a question could be raised whether unified license should include all telecom services and exclude broadcasting services. While considering this aspect, Authority has noted that broadcasting services are being

regulated and in some cases licensed by a separate Ministry. However, with the development of technology and even markets, it would be difficult to clearly differentiate the network infrastructure and even the terminal devices which are used to offer these different services. For example, a broadcasting DTH Operator could also offer broadband internet connectivity which in turn could offer all IP enabled services including Internet telephony. Similarly broadband internet service provider could offer TV over IP. All these are not futuristic but are already happening in a number of countries. We are in an advantageous situation because telecom revolution is in a warm up stage, with much of our growth still to come. At this stage, the license regime must allow full advantage of the technological developments. It should not restrict the type of services which could be potentially offered, should encourage efficient utilisation of resources and thus build up economies of scale and scope. Keeping these aspects in mind, the Authority decided to recommend inclusion of broadcasting services under unified licensing regime. As mentioned earlier, this situation was envisaged in NTP'99 and was the basis also for the Convergence Bill. Further, as per Clause No.2(1) (ea) & k of TRAI (Amendment) Act, 2000 Central Government may notify other service to be telecom service including broadcasting Services. Accordingly, Department of Telecom vide its Notification dated 9th January, 2004 had notified Broadcasting Services and Cable Services to be telecom services.

1.6 It may be recalled that Telecom Regulatory Authority of India (TRAI) had issued draft recommendations on 'Unified Licensing Regime' on 06.08.2004 with the aim to gather the comments of stakeholders, if any, for implementation of Unified Licensing Regime for all telecom services.

1.7 It may also be recalled that TRAI in its Unified Licensing recommendations dated 27th October 2003 had envisaged a two-stage process to introduce a Unified Licensing Regime in the country. The first phase that entails a Unified Access Service License (UASL) at circle level has already been implemented.

1.8 The relevant extracts of the TRAI recommendations dated 27.10.2003, which lay down the broad framework of the envisaged regime, are reproduced below:

“7.1 Considering the vision of Government of India through various policies (e.g., NTP’94, ‘NTP 99, Convergence Bill), technological development, market trends, international trends, the need to accelerate growth of telephone density, public interest and for the proper conduct of the Service/telegraphs, it is recommended that within six months “Unified Licensing” regime should be initiated for all services covering all geographical areas using any technology. The Regime would be finalized through a consultative process, once ‘in-principle’ approval is received from the Government. The initiation of the Unified Licensing process means that TRAI would submit its recommendations on this issue to Government of India. This Unified Licensing regime would be implemented through automatic Licensing / Authorisation subject to notification to Regulatory Authority and compliance with published guidelines (by the operator), thereby removing barriers to facilitate growth in the sector.

7.2 The Guidelines would be notified by the licensor based on TRAI recommendations to include nominal entry fee, USO, etc. The charges for spectrum shall be determined separately. The operator shall be required to approach the licensor mainly for spectrum allocation. Since, spectrum is a scarce resource, it needs to be regulated separately. Spectrum should be distributed using such a mechanism that it is allocated optimally to the most efficient user.

7.3 The choice of area/service would be left to the operator. “

1.9 The recommendations of the TRAI were also in line with the prevalent international practices, which is to move towards simplified Authorisation / Converged licenses. Such a regime is already functioning in Australia, Argentina, parts of European Union (an EU directive requires such a regime to be implemented across all EU Member States), Malaysia, Singapore, Japan, etc.

1.10 Once the broad framework was decided and put in place, the TRAI began consultation on its implementation with the issue of a preliminary consultation paper (5 of 2003) on Unified Licensing Regime on 15th November 2003. The preliminary consultation paper raised various issues, which would be required to be dealt while formulating the Unified Licensing Regime. The issues were classified under following categories:

- i) Ambit and type of Unified Licensing.
- ii) Registration Charges
- iii) Entry Fee paid by existing service providers
- iv) Service Area
- v) Rollout Obligations
- vi) License Fee
- vii) Business case of (existing) service provider, especially stand alone operators.
- viii) Interconnection and PSTN connectivity.
- ix) Numbering Issues
- x) Other Issues.

1.11 From the responses received, there appears to be a general consensus on moving towards a Unified Licensing Regime. However, there have been several comments on specific issues that require detailed examination before any decision is taken.

1.12 Taking into account the comments received in pre-Consultation Paper, International Practices and its own analysis, TRAI issued a Consultation Paper on Unified Licensing Regime on March 13, 2004. The written comments from various stakeholders on this Consultation Paper were invited by 30th April 2004. Open House Discussions were held in New Delhi and Mumbai on 12th May, 2004 and 14th May, 2004 respectively.

1.13 Based on the comments received in the Consultation process and its own analysis TRAI has finalised its recommendations of Unified Licensing Regime in India. These recommendations are discussed in detail in the following paragraphs.

2.0 Key Objectives

2.1 The key objective of the Unified Licensing Regime is to encourage free growth of new applications and services leveraging on the technological developments in the Information and Communication Technology (ICT) area. Other main objectives of the Unified Licensing Regime are to:

- Simplify the procedure of licensing in the telecom sector,
- Ensure flexibility and efficient utilisation of resources keeping in mind the technological developments
- Encourage efficient small operators to cover niche areas in particular rural, remote and telecommunication-facilities-wise less developed areas.
- Ensure no- worse off, level playing field and easy entry

2.2 Ultimately, the licensing regime has to be such that a service provider, who could come out with a brilliant idea based on new application and/or technology but may not have the resources to pay the relevant entry fee, should still be able to offer telecom services to the customers at an affordable price.

2.3 It is pertinent to adopt a licensing regime, which ensures that these objectives are met in true spirit. To finalise the licensing regime, it is imperative to determine the desired licensing framework.

3.0 Framework of Unified Licence

3.1 Based upon the comments received on the preliminary consultation paper and international practices prevailing in different countries, three models, viz, Unified and Class Licence Model (Model-I), Convergence Bill Model (Model-II) and Facility and Service Based Licensing (Model-III) were included in the consultation paper for comments of various stakeholders. Most of the stakeholders have opined that Model-I, i.e. Unified and Class Licence Model should be followed. Different stakeholders have expressed different opinions on the classification of different services under unified and class licence categories. On closer scrutiny of these models, it is observed that fundamentally these models are not different from each other. For example, one could classify facility-based licenses under Unified License and service-based licenses under class license. Under this situation, Model-I and Model-III will be same. Similarly, if network infrastructure facilities (Like IP-I Services), networking services (Bandwidth services like IP-II licensee) and value added network application services (Like Internet Services) are combined under class license and network application services are put under Unified License then Model-I and Model-II will be the same. Various categories of licenses under different models mainly differ on account of variation in terms and conditions of the license viz. types of services, registration charge, annual license fee, service area, etc. While opining that Model-I will be more suitable model, the fear expressed by stakeholders is that in Model-II there could be a confusion in classification of services under the relevant four categories and the operator may have to take more than one telecom license to offer even one telecom service. The issue of taking multiple licenses for offering one type of service is already addressed in draft Convergence Bill wherein it is mentioned that the Commission may grant licenses either singly or jointly for one or more of the categories of facilities or services specified in the Convergence Bill depending upon the choice of service provider. There is a provision that the licensee can take a single license for all

categories or the licensee can take 4 or less licenses separately. In addition to developing a consistent and future-proof licensing policy, the Authority also emphasises ease of entry of the operator under such a regime. In this context, an issue for consideration is the identification of some services for which licensing would involve only simple authorisation. The service provider who wants to offer services covered in this category of 'Licensing through Authorisation' will get license merely by informing the licensor and submitting a statement on compliance with certain terms and conditions regarding security, etc which will be issued by Department of Telecom and put on its website.

3.2 Recommendations on Framework of Unified Licence – In an ideal market situation, one could imagine that there should be no licensing regime. If at all there is a licensing regime, then terms and conditions should be such that ease of entry, lowest possible license fee, etc. are ensured. This ideal situation could have been possible if we were starting from scratch. But we started this process in 1994-95 with the liberalisation of cellular mobile services and basic services and then subsequently competition was opened to all other telecom services. We have different service areas (city to whole nation), different entry fee (zero to few hundred crores) and different license fee (zero to 15%) for different telecom services. With this type of legacy, it may not be possible to reach an ideal situation in one step but we should plan in a manner that it may be achieved in a few years.

While deciding the framework apart from the points mentioned above, one has to keep in mind other objectives like 'no worse off' situation to existing operators and level playing field among operators. Further, the Authority has also noted that despite incorporating rollout conditions in the license, one has not seen the large operators entering and covering telecom-facilities-wise backward areas. A need has been felt to attract investments in such areas by making the operations more viable. Keeping in mind our objectives of Unified Licensing Regime, comments

received from various stakeholders, issues raised above and to accommodate the legacy of the existing licensing structure, **the Authority considers that a modified Model-I, i.e. Unified License and Class License Model along with 'Licensing through Authorisation' and standalone broadcasting and cable TV licence should be followed for Unified Licensing in India.** The main difference in these four categories of licenses is on account of type of services covered under each category of license, Registration Charges, annual license fee, etc. These terms and conditions are discussed in subsequent paragraphs in these recommendations.

3.3 There shall be four categories of licenses:

i) **Unified License** - All Public networks including switched networks irrespective of media and technology capable of offering voice and/or non-voice (data services) including Internet telephony, cable TV, DTH, TV & radio broadcasting shall be covered under this category. Unified License implies that a customer can get all types of telecom services from a Unified License operator. The operator can use wireline or wireless media.

ii) **Class License** - All services including satellite services which do not have both way connectivity with Public network shall be covered under Class license. However, Radio Paging and PMRTS will not be included in this category but in 'licensing through authorisation' category. These exceptions are mainly to provide easy terms and conditions to Radio Paging and PMRTS services. These services are loosing their competitive edge and their number of subscribers are either falling or in some areas growing at a very slow rate. Though, we believe that market forces should prevail but still if a service is on the verge of extinction then an attempt to revive these services by easing the terms & conditions would be justified. Of course, while considering this aspect Authority has kept in mind that an attempt to revive these services should not become a competitive threat

to other telecom services. Keeping this in view, Radio Paging and PMRTS services are included in the category of 'Licensing through Authorisation' wherein service providers are not required to pay any entry fee or annual license fee. There will also be an addition of Niche operators in this category as far as entry fee and annual license fee is concerned but unlike class licensees, niche operator may offer fixed telecom services including multimedia, internet telephony and IP enabled services within the areas specified for their operations.

iii) Licensing through Authorisation - This category will cover the services for provision of passive infrastructure and bandwidth services to service provider(s) and Internet Services including existing restricted Internet telephony (Personal Computers (PC) to PC; within or outside India, PC in India to Telephone outside India, IP based H.323/SIP Terminals connected directly to ISP nodes to similar Terminals; within or outside India), but not Internet Telephony in general. In the existing licensing regime these services have nil/very low entry and license fee. Though the license fee for IP-II services in the existing regime is 6%, TRAI is of the opinion that no license fee should be charged on IP-II service providers. The service providers of these services may only notify themselves with DoT before starting the services. At the time of Notification, these service providers may submit a compliance certification to Authorisation conditions, like security, etc. Voice mail, Audiotex, Video Conferencing, Videotex, E-mail service, Unified Messaging services, tele-banking, tele-medicine, tele-education, tele-trading, e-commerce and other service providers, as indicated in NTP'99 shall also be covered under 'Licensing through authorisation' category.

iv) Standalone Broadcasting and cable TV license- This category shall cover those service providers who wish to offer only broadcasting and/or cable TV services.

Stand alone licenses for Broadcasting Services would continue to be issued. The prevailing process of issuing of such a license by I&B Ministry (including

allocation of spectrum in consultation with WPC) would also continue. If a unified licensee wants to offer 'Broadcasting Service', the licensee will have to apply to the I&B Ministry in case such clearance is required and fulfill other requirements as prescribed. The content in any case, would be regulated by I & B Ministry.

3.4 The principles underlying the specification of the categories in the Unified License Regime include reducing entry costs and regulatory costs of operation (e.g. revenue share license fee) so as to promote price reduction and consequent growth, simplifying the applicable license regime, and facilitating the entry of operators while maintaining a level playing field. The charge for scarce resource such as spectrum is to be separately specified under this framework. Since as mentioned earlier, there is a major overlap between telecom and broadcast services, the Unified License which covers all relevant services should also include broadcast service. One of the issues regarding inclusion of broadcasting under Unified Licensing Regime is whether it should also be covered under either the Class License or Authorisation License. However, the Authority noted that broadcasting services have an existing regime with terms & conditions different from those encompassed in the general framework of Unified Licensing. For example, the regime for Broadcasting combines various types of fees and terms and conditions which are different from those specified under the Unified Licensing regime. Moreover, it was noted that there are some Broadcasting Recommendations of the Authority already under consideration by the Government. It is also clear that the preferred change to the overall framework of the Unified License, in the case of Broadcasting, would require further adjustments.

In this situation, it is necessary for Broadcasting services to have a stand-alone License regime as at present. The Authority expects the Government to take account of the framework which has been specified here, in its consideration of the Recommendations which have earlier been provided on Broadcasting. The decision of the Government in that context will give the basis for further assessment by the Authority to develop a transition towards a comprehensive

License regime with Broadcasting being treated under the broad framework of Unified Licensing itself, consistent with the principles applied for other services under this framework. Thus, over time, it should be possible to simplify the payment structure under the regime with clear links to payment for scarce resources, and allowing the possibility of reducing other regulatory charges as the industry evolves. Therefore, Authority considered that at this stage it will be appropriate as a transition arrangement to keep this service as a separate category under unified licensing regime for ease of implementation and administration of the recommended unified licensing regime.

3.5 If a stand alone Broadcasting operator wants to offer telecom services covered under any of the other three License categories within the Unified Licensing regime, the operator will have to apply for the relevant License and meet the corresponding terms and conditions. If a Unified Licensee wishes to offer broadcasting and/or cable services then existing terms and conditions on such services would continue to prevail.

3.6 This licensing framework except stand-alone Broadcasting & cable TV services shall be hierarchical in nature with Unified licence being at the highest hierarchical level. This is to say that the Unified Licensees shall be able to offer the services that Class licensees, licensee licensed through authorisation and standalone Broadcasting and cable TV licensees could offer, but not vice versa. Such a licensing regime would enable a licensee to provide any or all telecom services by acquiring a single license. Similarly a Class licensee shall be able to offer the services that licensee licensed through authorisation offer, but not vice versa. In case a Class licensee or licensee licensed through Authorisation wishes to offer services covered under Unified License they shall apply for a Unified license.

The categorization will become clearer in Para 3.9 while mapping existing service in different categories of proposed licensing regime.

3.7 Once a service provider take a particular license under Unified Licensing Regime, the service provider shall provide an intimation to the licensor and TRAI before providing any service.

3.8 One could argue that we should opt for Model II i.e. Convergence Bill Model, so that it is easier to migrate to Convergence Bill Model if and when approved. In this regard, it is pertinent to note that the proposed Model i.e. Unified and Class License, is not significantly different from Convergence Bill Model, as discussed in para 3.1 above. However, to have consistency between proposed model and the framework of draft Convergence Bill, the Authority recommends a suitable amendment in the framework of Convergence Bill as and when it is considered. These amendments would mainly deal with various categories of license and their terms and conditions, concept of class license and migration process, etc.

3.9 Mapping of existing and new services: -

- (i) IP-I, IP-II, Radio Paging, PMRTS Services and Internet Services along with existing restricted Internet Telephony shall require 'Licensing through Authorisation'. IT enabled services such as call centres, electronic-commerce, tele-banking, tele-education, tele-trading, tele-medicine, videotex, video conferencing, voice mail, Audiotex, e-mail, other service provides as mentioned in NTP'99, Unified messaging service and such other as may be prescribed, shall be covered under this category.
- (ii) VSAT Services will require Class License.
- (iii) Basic, Cellular, Unified Access Service, NLD, ILD, GMPCS, Broadcasting Services, and Internet Telephony: shall require Unified License.

- (iv) As explained in Para 3.6, Unified Licensee shall be able to offer any service including the services covered under class license, 'Licensing through Authorisation' category and stand alone Broadcasting and Cable TV Service.
- (v) Standalone Broadcasting & Cable TV Services: Those service providers who wish to offer only broadcasting and/or Cable TV service shall require a stand alone Broadcasting & Cable TV license whenever such license is required and/or fulfill the other requirements as prescribed.

Some of the stakeholders have sought clarification/details pertaining to inclusion of broadcasting services under Unified Licensing Regime.

Subsequent to the issue of draft recommendation on Unified Licensing regime (issued on 6th August 2004), a supplementary note was issued on 9th August 2004 to clarify inclusion of broadcasting services under unified licensing regime.

As per this the category of service providers offering broadcasting services only will be a separate category under unified licensing regime wherein existing terms and conditions will continue to prevail. In case the existing cable TV or broadcasting operators decides to continue offering only cable TV or broadcasting services then the operator can continue to do so under this fourth category of unified licensing regime. In case a new operator wishes to get a new license for broadcasting services only, this operator also can do so even under unified licensing regime, at present as well as even after five years. In case a broadcasting service operator decide to offer any or all telecom service then this operator would be covered under other 3 category of unified licensing regime and the operator can accordingly apply for the relevant license. This regime allows

complete flexibility to the service provider to offer broad casting and/or telecom services.

4.0 Internet Telephony and other IP- enabled Services: -

4.1 Since the key objective of Unified licensing is to encourage free growth of new applications and services leveraging on the technological developments in ICT area, the recommended licensing regime will have no restriction on usage of Internet telephony or other IP enabled services. With this India will join a group of more than 80 countries where Internet telephony is permitted. Of course, as mentioned above any service provider offering Internet telephony including ISPs will come under Unified License category and will have to comply with terms and conditions set therein. In the interest of security, suitable monitoring equipment as may be prescribed will be provided by the licensee for monitoring as and when required by the licensor.

As mentioned in Para 3.3 above, ISPs offering only Internet services including presently permitted restricted Internet telephony shall require 'licensing through Authorisation' only. One could argue that ISPs would try to offer Internet telephony without taking Unified License. Currently, ISPs don't have inward dialling traffic. To offer unrestricted Internet Telephony, the inward dialling is to be enabled, which will have to be done by Access Service Provider. Therefore, ISPs on their own will not be able to offer unrestricted Internet Telephony. If ISPs violate the terms and conditions of their license then they will be dealt with as per the provisions in the Act.

The Authority has noted that for the growth of Internet and Broadband services unlicensed spectrum usage will have to be encouraged. The development of technology may also bring more and more services under the ambit of services using unlicensed spectrum. The spectrum related issues including unlicensed spectrum wi-fi/ wi-max spectrum would be dealt separately. The Authority's

recommendation is that not only Internet telephony but also other IP enabled services should be freely permitted. NLD and ILD operators could argue that their business case is affected but that is not the case because open competition has been emphasised by the Government of India since the opening of competition in NLD and ILD services. Keeping in mind the above considerations and having put Internet Telephony under Unified License category, level playing field considerations are ensured. This becomes clear further when issues of entry fee, license fee, etc. are discussed later.

5.0 Niche Operators: -

5.1 As rollout obligations in rural areas have been removed in the Unified Access Service License, the Authority is of the view that we should open a route for entry of small operators to provide Telecom services in areas which are backward from telecom penetration point of view. The basic idea is to promote such niche operators in the market to improve penetration and have competition even in the backward areas. Since at this stage Niche operators will be allowed to offer telecom services only in rural / remote / backward areas from telecom point of view, the criterion to define such areas is important. Since Niche operators are not required to pay any entry fee, area of operation for niche operators is to be defined in such a way that existing operators don't face non level playing field. On the other hand, financial viability of Niche operators is to be kept in mind while defining the area of operation for niche operator. Since rural tele density (based on fixed Rural DELs) in the country is around 1.7 percent, the Authority recommends that SDCAs where rural tele density (based on fixed subscribers) is below 1% shall be area of operation for Niche operators. The Authority is of the view that in case SDCAs with rural tele density more than 1% are considered then the really backward areas where rural tele density is much below national average may be left uncovered. Keeping this in view SDCAs where rural tele density (based on fixed subscribers) is below 1% shall be service area for Niche operators. Niche operators shall be permitted to offer fixed telecom services including multimedia, internet telephony and other IP enabled

services only in these SDCAs. These operators shall however, be permitted to use wireline / fixed wireless networks. This definition of niche operators shall be reviewed depending upon market conditions and development of various technologies and applications. To increase penetration of telecom services in rural / remote / backward areas from telecom point of view, Authority is considering a two fold approach. One is that existing operators should increase their geographical and population coverage. Right now only 20% of total population of the country is covered by mobile services. Even the countries, which have lower GDP per capita on PPP basis, have higher coverage. The population coverage of some of the countries is indicated below:-

Table 2 Mobile coverage beyond the urban population in selected countries, by region, 2002.

Region	Country	Pop. Covered by mobile signal	% of urban pop. in country
Africa	Cape Verde	90%	53%
	South Africa	93%	53%
	Togo	90%	38%
	Zambia	50.5%	44%
Americas	El Salvador	85%	45.6%
	Ecuador	86%	63.6%
	Gautemala	68%	40%
	Mexico	89.9%	74.7%
Arab States	Jordan	99.5%	78.7%
	Morrocco	95%	55.9%
Asia-Pacific	Korea-Rep.	99%	84%
	Malaysia	95%	62%
	Philippines	70%	58.6%
Europe	Azerbaijan	94%	50.8%
	Belarus	72%	70.7%
	Czech Republic	99%	71%
	Slovak Rep.	98%	56.1%

Source:- ITU World Telecommunication Indicators

From this table and looking at the existing plans of mobile operators it is clear that mobile operators in India also should achieve at least 70% population coverage in next 2-3 years. This approach could be termed as “Top Down Approach”. The second approach is termed as “Bottom Up Approach”. Here the

small operators who could work as Niche operators would not only offer fixed telephony service but also deploy multimedia services using local content. This will help in developing the partnership between local population and the niche operators. A quote from recently published book “The fortunes at the bottom of the Pyramid: Extracting Poverty through Profits” By Prof. C.K. Prahlad is appropriate here

“What is needed is a better approach to help the poor, an approach that involves partnering with them to innovate and achieve sustainable win-win scenarios where the poor are actively engaged and at the same time, companies providing products and services to them are profitable”

Introducing the concept of niche operators under Unified Licensing Regime is a step in this direction.

5.2 It is also clarified that once niche operators start their services in these backward areas and suppose teledensity increases beyond the 1% level, even then these niche operators should continue their services at the terms and conditions applicable to niche operators license because it will be an incentive for them to increase their revenue base and promotion of tele services in these backward areas.

5.3 One could question the necessity of niche operators, especially, when we have already a Class License Category. In fact the necessity arises from the fact that these service providers will be offering only fixed telephony services including multimedia, internet telephony and other IP enabled services and their area of operation will be limited to SDCAs which are backward from telecom penetration point of view. If we include these niche operators under Unified License category then the condition of creating a viable business case through easy entry condition may not be met. It is to be noted that at this stage the concept of niche operator is applicable only for this type of service. The conditions of entry and operations are easier so as to encourage the growth of telecom services in telecom-wise-backward areas. Niche Operators will be

subjected to nil registration charges. Based on presently applicable USF and administrative cost rates, these Niche Operators will pay annually 6% (contribution to USF + administrative cost) of their AGR as license fee. Ultimately, as discussed in para 10, the license fee may come down because contribution to USO and Administrative cost in terms of percentage of AGR may come down. The issue of USO support to Niche operators and other USO related issues are being dealt separately through consultation. The spectrum allocation and its charges for these services will also be recommended separately alongwith TRAI's recommendations on spectrum related issues. However, since TRAI is committed for the growth of telecom services in rural and backward areas from telecom point of view, our effort will be to minimise regulatory burden on niche operators by charging either Nil or minimal spectrum charges.

5.4 One school of thought is that it should be more viable to a big operator to rollout services in backward areas than a standalone niche operator. The Authority's objective is to give an opportunity of easy entry to new players in these markets which are backward from telecom point of view and then let the market forces decide the viability, level of competition, etc. on their own.

5.5 In their comments on draft recommendations and also in the consultation process of "Growth of Telecom Services in Rural India", some of the stakeholders reiterated their opinion that due to economy of scale there could be a question mark on financial viability of niche operators. As mentioned above, our objective is to increase the penetration of telecom services in uncovered areas through participation of market forces, therefore, through this concept of Niche Operators let small entrepreneurs with the usage of a viable technological option try to develop their own business case. It would not be appropriate for others to prejudge their business case viability.

5.6 Some of the stakeholders have opined that Niche Operators should be permitted to offer both fixed and mobile services. Some of the stakeholders have

also opined that such operators should be permitted to offer any telecom service. The Authority is also of the opinion that Niche Operators should be permitted to offer all kinds of telecom services including mobile services. But the problem is that because of restriction of service area only within the SDCAs wherein the teledensity is below 1% again the issues of violation of mobility beyond permitted service area will be raised and the same controversy as was prevailing before Unified Access Service License will crop up again. Authority is convinced that Niche Operators would have a business case even without mobile services using a combination of upcoming wireless and IP based technology. In any case this situation would be again reviewed after one year considering the development in a fast growing market in India and also in view of various technological developments, which will take place in next one year.

5.7 Further, in their comments on draft recommendations some stakeholders have expressed the opinion that Niche operators should not pay any annual license fee. Authority is of the opinion that in case there is no license fee then even the big operators may open their own subsidiaries and use the niche operator's channel to avoid the payment of annual license fee and this may again raise controversial issues. The issue of coverage of Niche operators under USO regime could be considered separately while making recommendations on growth of telecom services in rural areas, for which a consultation paper has already been issued by TRAI. Open House Discussions have also been held in this regard.

5.8 Regarding the service area of Niche operators though there are opinions that the limit of 1% should be changed to 2% and the service area should be increased to LDCA but the whole emphasis of Authority is to cover areas which are backward from telecommunication point of view and hence this limit of 1% is kept. Again the situation can be reviewed after one year depending upon the increase in teledensity in rural areas. The issue of lower or nil spectrum charges

for Niche operators will be considered in the recommendations on spectrum related issues, which will be issued shortly by TRAI.

5.9 Some stakeholders have raised the issue of stipulating rollout obligations on Niche operators. The Authority, based on the past experience is of the opinion that it is not necessary to stipulate roll-out conditions on the Niche operators. These operators in any case are being licensed in areas which are having less than 1% teledensity and therefore, it is being left to them how do they roll-out their networks in these areas. However, the progress in this regard would be monitored periodically and if necessary the terms and conditions for such licensees could be reviewed.

It is reiterated that Niche operators can offer fixed telecom services including Internet telephony.

5.10 The detailed terms and conditions for niche operators would be finalised after TRAI's recommendations are accepted by the Government of India.

6.0 Service Area: -

6.1 Depending upon the choice of service provider it could be national level or circle level (same as in UAS regime). For niche operators it would be at the relevant SDCA level.

7.0 Rollout Obligations: -

7.1 The objectives of rollout obligations are to ensure spread of infrastructure (as far as possible) and coverage of rural, remote and less developed areas. Specifying these obligations in the license conditions in the past could not meet these objectives in a major way. One option is to meet these objectives through USO, which may not guarantee competition. With the introduction of niche

operators as defined in para 5.0 above and providing flexibility to existing/new service providers it is felt that these objectives could be met to a great extent.

7.2 As mentioned earlier, if the service provider does not find any part of the service area financially viable then the service provider will not rollout his network in that area. The service provider may even prefer to pay the penalty for not meeting such specified rollout obligations. Our thrust has to be on ensuring that service providers find it attractive to roll out his network even in uneconomic areas. The license conditions should be such that service providers find it attractive to rollout the network even in such areas. Network externality factor in telecom is very important, with more and more nodes added in the network, its value increases more than proportionately. The deployment of network in uneconomic areas, to provide initial support from USF and the resultant increase in economic activity in that area, this whole cycle leads to overall development of even these backward areas and the investment in telecom along with development of other infrastructure like power, transport, etc. makes it a viable investment. Thus in general, rollout obligations should be phased out expeditiously.

7.3 The existing Unified Access service licensees have roll out obligation to cover at least 10% of District Headquarters (DHQs) in the first year and 50% of the DHQs within 3 years of effective date of license. The licensee is also permitted to cover any other town in a District in lieu of the DHQs. The Existing NLD operators have to roll out their network in all LDCAs within 7 years from the date of issue of their license.

7.4 The issue of rollout obligations was discussed at length during deliberations of Authority. Various options discussed are as follows:-

- i) No rollout obligations;
- ii) Rollout obligations as per UASL for Access Services and as per NLD license conditions for long distance services;

- iii) Rollout obligations as per UASL for Access Services and the licensee makes an arrangement to pick up/handover long distance traffic of his subscribers in all service areas. 'Arrangement' means that the licensee either sets up his own transmission system or leases the bandwidth/dark fibre from other licensees or have an arrangement with other service provider(s) to carry his long distance traffic.

7.5 While discussing these various options, the Authority noted that by definition, NLD operations constitute an intrinsic part of the Unified Licensing Regime and Authority considered the following factors before finalising its recommendations:

- i) Market conditions to prevail;
- ii) Promotion of competition in all areas;
- iii) Level playing field among various operators;
- iv) Existing operators are not in a 'worse off' situation;
- v) New regime should be more flexible.

7.6 Rollout obligations could be considered in two parts – (i) Rollout obligations for Access Services and (ii) Rollout obligations for long distance services. As far as rollout obligations for Access services is concerned, Authority considers that rollout obligations as stipulated in Unified Access Services License provide enough flexibility to service providers and it helps in meeting the objectives mentioned in para 7.5 above. Keeping this in view, Authority recommends that for access services UASL rollout obligations as reiterated in Para 7.3 above should continue under Unified Licensing Regime. Even if a NLDO chooses not to become Unified License during the first five-year optional period, his roll out obligations will get modified to be the same as that of the Unified Licensee.

7.7 For National long distance services, it is recommended that the licensee shall make an arrangement to pick up/handover long distance traffic of his subscribers in all service areas. In the absence of carrier preselection or call-by call selection, it shall be the responsibility of the Unified Licensee/access service provider at originating end to ensure completion of calls to all destinations in the country. Once carrier pre-selection (CPS) is implemented, it will be the responsibility of the unified licensee/NLD operator(s) to complete all the calls of subscriber(s) who has/have pre-selected this licensee as a carrier of their choice. Details are discussed in subsequent paragraphs. Under Unified Licensing Regime, if a unified licensee/NLD operator is not able to make an arrangement with other operators to carry the long distance traffic then that service provider has to build up his own network or lease network upto the location (s) where the service provider wants to handover / pickup inter-service area long distance traffic as mentioned above. For ILD services, existing roll-out conditions shall continue. Some stakeholders have opined that ILD roll out obligations should also be reviewed. Authority considered this viewpoint and decided that it is not necessary to review the existing ILD obligations because that is not very stringent and it has already been achieved by most of the existing ILD operators.

7.8 Roll out obligations have a linkage to the level of point of Interconnection between Unified Licensees and/or between Access providers and long distance operators. Detailed regulation on Interconnection which includes level of traffic handover between various operators shall be brought out by TRAI separately from time to time, as required. Though regulation on Interconnection would be brought out by TRAI separately and to some extent is discussed in Para 14.4 in these recommendations, it becomes necessary to clarify the level of picking up/handover traffic between two networks to the extent that it affects the roll-out obligations. In addition, level of Handover/Pick up affects IUC charges and in turn its effect on tariff is also discussed subsequently in these recommendations.

7.9 In the existing interconnection arrangement between Access providers and NLDOs, the NLDOs are required to handover traffic at SDCA level. This makes the NLDO's job more difficult because unless he either builds his own network or leases the bandwidth to all SDCAs in the country, he will not be able to compete very effectively with incumbent operator as far as NLD services are concerned. One of the objectives of Unified Licensing Regime is flexibility in operation of telecom services and keeping this objective in mind the Authority considers that Unified Licensee/NLDO should have a choice of either handing over / taking over of inter-service area long distance traffic at a central location (s) for example Level-I TAX or at LDCA level. Below LDCA level it should be with mutual consent between two unified licensees or between unified licensee and NLDO or between NLDO and Unified Access Services Licensee. Principle of non-discrimination shall be followed in the matter of Interconnection

7.10 For National Long Distance Services the main issue for consideration is to ensure completion of the calls to all destinations in the country. In the absence of carrier preselection or call-by call selection, it shall be the responsibility of the access service provider at originating end to ensure completion of calls to all destinations in the country. Once carrier pre-selection (CPS) is implemented, it will be the responsibility of the unified licensee/NLD operator(s) to complete all the calls of subscriber(s) who has/have pre-selected this licensee as a carrier of their choice. Access service provider at the terminating end shall pick up the call from central location (s) or from LDCA level depending on the choice of Unified Licensee/NLDO.

7.11 As discussed in the previous paragraph, if handover takes place at central location (s) or at LDCA level then terminating operator will demand higher termination charges depending upon the distance between handover location to terminating SDCA. Enough competition in long distance services, complete flexibility to unified licensee/NLD operator to handover/pick up long distance traffic along with a freedom to carry long distance traffic either with an

arrangement with other operators or leasing bandwidth or building its own network should ensure that there is no increase in long distance tariff. If an increase in termination charges on account of handover at a central location is pushing NLDO/unified licensee's margin downwards then instead of increasing the tariffs the service provider may handover the traffic at LDCA or SDCA level.

8.0 Bank Guarantees: -

Performance Bank Guarantee (PBG) for Unified License will be as per UASL. There shall be no PBG for Class license and 'Licensing through Authorisation'. For NLD/ILD operators and UALs who do not migrate to Unified Licensing Regime, the existing PBG shall continue.

Some stakeholders have raised the point that in addition to performance bank guarantee there should be a financial bank guarantee also. It is mentioned that there is already a penalty clause for paying Rs. 50 crores in case of non-compliance to licensing terms and conditions, in the existing Unified access services license agreement. It is proposed that this clause should be stipulated in the Unified License agreement to ensure the compliance to terms and conditions of the license including the due payment by licensee to the licensor.

9.0 Spectrum pricing:-

9.1 In the existing policy, spectrum charges have two components - (i) one time spectrum charges which are paid as part of one time entry fee by the service providers and (ii) annual spectrum charges which are paid in the form of percentage of AGR. The spectrum related issues including spectrum pricing and its allocation are already under a consultation process and depending upon the comments received during consultation process and TRAI's own analysis the spectrum recommendations will be finalized. In the interim period till spectrum guidelines are issued by the Government of India based on TRAI's recommendations, the existing spectrum pricing and allocation procedures will continue.

9.2 On the issue of introducing more competition, as mentioned in TRAI's recommendation on Unified licensing Regime dated October 27, 2003, TRAI has always been in favour of open and healthy competition. In its recommendations on the introduction of the 5th and 6th Cellular Mobile license, the TRAI opined that

“Induction of additional mobile service providers in various service areas can be considered if there is adequate availability of spectrum for the existing service providers as well as for the new players, if permitted.”

9.3 It is possible that revised spectrum policy is not in place before finalising the Unified Licensing Regime. Under this situation the existing annual spectrum charges as mentioned in Para 9.1 above shall continue till new spectrum pricing policy is finalised. Currently, the spectrum charges are a percentage of AGR for UASL, the same could continue even under Unified Licensing Regime till new spectrum pricing policy is finalised. It is clarified that under the Unified Licensing Regime, revenue share collected for spectrum charges should be based only on AGR from Access services. For point-to-point wireless transmission systems, used by various service providers including NLDOs the applicable existing spectrum charging principle would continue, till reviewed. It is also clarified that TRAI while finalising recommendations on spectrum related issues will keep the aspect of level playing field in mind and TRAI will shortly come out with spectrum recommendations.

10.0. **License Fee: -**

10.1 TRAI is of the view that the telecom services should not be treated as a source of revenue for the Government. Imposing lower license fee on the service providers would encourage higher growth, further tariff reduction and increased service provider revenues. With increased growth, it would be a win-win situation for the industry and the Government. Presently, in addition to

license fee(which varies from 0%-15%), spectrum charges (2-6% - wherever applicable) the telecom service providers pay Service Tax of 10%. Since for the services being offered, the service providers are charged service taxes of 10%, we are of the view that the maximum level of license fee should not exceed the contribution towards USF and Administrative fee. The present level of USO contribution is 5% and the level of Administrative fee shall be 1% of AGR presently. Therefore it is recommended that for Unified License, Class License and Niche operators the License fee shall be (contribution to USF(5%) + Administrative cost (1%)) i.e. 6% of Adjusted Gross revenue (AGR). The administrative cost is required for managing, licensing and regulating the sector.

10.2 With technological developments, flexibility in the licensing regime, deployment of more and more wireless technologies (using both licensed and unlicensed spectrum) and the growth of telecom services even in backward areas from telecom point of view, the Government may consider reviewing USO policy to reduce the level of USO contribution at an appropriate time, from its present level of 5%. Similarly, with increased revenues the Administrative cost in terms of percentage of AGR may also come down from the recommended value of 1%. The policy in this regard may be reviewed periodically every year depending upon the market conditions. Services licensed through Authorisations shall not be required to pay any License fee.

Unified Licensee and Class licensee shall be able to deduct from its AGR, revenue accrued from all services that are permitted under 'License through Authorisation'. If a Unified licensee offers broadcasting services then terms and conditions pertaining to license fee, as prescribed from time to time, on Broadcasting services would be applicable on such services.

10.3 AGR shall include only the revenue accrued out of telecom services and shall not include sale of capital goods, sale of handsets, dividend and interest earned on various deposits. To ensure that bundling of handsets with tariff

provision is not misused, the existing provision of tariff schemes with bundling to be made available to subscribers even without bundling shall continue.

10.4 With the implementation of ULR the importance of maintaining separate accounts shall also increase. In the existing service specific licensing regime since different services are being offered through different licenses, therefore, their accounts are maintained separately. In the Unified Licensing regime the service provider may offer various services which are not currently offered/defined in the existing licensing regime, and therefore, it is all the more necessary that accounting separation for all these types of services are maintained. All the licensees shall maintain separate accounts for every service and product/network service for each of the licensed areas as per TRAI's Regulations from time to time.

10.5 In the existing licensing regime, the Government of India has given an extra concession of 2% in annual license fee for 1st and 2nd cellular operators for a period of four years out of which almost one year is already over. These operators have represented that this extra concession in comparison to other operators should continue in the new licensing regime.

Even while giving this concession the lowest license fee was kept at 5% so as to meet the requirement of contribution to Universal Service Fund. Even now it is proposed that the contribution to Universal Service Fund should not be reduced and therefore Authority considers that 1st and 2nd cellular operators should pay 5% of AGR as annual license fee for next 6 years. It is also clarified that those existing licensees who do not migrate to Unified License will not be entitled for reduction in annual license fee from their existing levels. TRAI has been emphasizing on revised definition of Adjusted Gross Revenue which should not include sale of capital goods, sale of handsets, dividend and interest earned on various deposits. TRAI reiterates that this revised definition of AGR should be incorporated not only in Unified License but even in existing licenses where ever applicable.

11.0 Registration Charges: -

11.1 For Class license, niche operators and services licensed through Authorisations, there shall be no Registration Charge. The 'nil' registration charge for niche operators who offer fixed telecom services, limited to some SDCAs, is in line with the objective of ease of entry enshrined in the concept of Unified License.

11.2 For Unified License the Registration charge shall have two components, besides initial spectrum charge.

- (i) Registration Charges based on entry fee paid by NLD and ILD operators: Basis shall be entry fee paid by long distance operators (NLD plus ILD) which will be discounted on pro rata basis for the period for which license has been used. Registration charge for this component is given in Annexure I.

- (ii) Registration Charges based on entry fee paid by new Basic Service Operators (entered in/after 2001): This component shall depend upon the Service area(s)/Circle(s) where the Unified Licensee wishes to offer access services. Basis shall be entry fee paid by new BSO (entered in/after 2001) multiplied by the ratio of all India fixed subscribers (both wireline and WLL (F) subscribers included) to the total (fixed plus mobile) subscriber base of Pvt. operators. Subscriber base of private BSO entered in/after 2001 shall be considered for this purpose.

Registration Charges for a circle = Entry fee paid by BSOs (entered in/after 2001) of the circle X

$$\frac{\text{Total (all India) fixed subscribers (wireline + WLL(F))}}{\text{Total (all India) subscribers (fixed and mobile)}} \left| \begin{array}{l} \text{of the New BSOs} \\ \text{entered in/after} \end{array} \right.$$

To calculate this component of registration charges the data of number of subscribers of previous quarter from the date of acceptance of TRAI's recommendations could be taken as a basis. To illustrate this ratio is 16% for the number of subscribers as on 31.3.2004 and illustrative calculations are given in Annexure-II. WLL (M) subscribers will be treated as mobile for this purpose.

11.3 Since different long distance operators signed license agreements on different dates, the discounted value will be different for different licensee (details given in enclosed Annexure I). An average value of NLD and ILD license shall be taken which is Rs. 85 crores and Rs. 22 crores respectively. Therefore, long distance component of Registration charge shall be Rs. 107 crores.

11.4 A new unified licensee will have to pay Registration charges which will have two components, i.e. one is Rs.107 crores and the second component will depend upon the number of service area(s)/circle(s) where the service provider wants to offer access services. The additional component of access services for all circles is given in Annexure II. The Registration charge will be dependent on the service area (owing to second component) but not dependent on the number of service(s) being offered under this category.

11.5 In case a unified licensee wants to increase his service area for offering access services to more number of circles under Unified Licensing Regime then in addition to Rs.107 crores the service provider will have to pay the extra registration charge for these additional circles based on the calculations given in Annexure II. An all India integrated operator who have all India UASL, NLD, ILD License will not pay any extra Registration Charges. Existing standalone ILD operators and GMPCS Operators who have paid much less entry fee than Rs.107 crores, would be required to pay the difference between the registration charges for Unified license and the entry fee paid by them, if they wish to migrate to Unified License. Another option is that they may continue under the existing service specific licensing Regime for five years.

11.6 The Authority has also noted that abovementioned Registration Charge for a Unified License is not 'low' as envisaged in the key objective of ease of entry in the telecom market. To ensure that existing operators are in no worse off situation and level playing field is maintained between new and existing operators, it is not possible to keep the registration charges lower than the presently prescribed charges. However, the Authority recommends that Registration charges for Unified License should be gradually reduced from the recommended level to Rs. 30 lakhs after 5 yrs (starting from the date of implementation of ULR). This decrease would be non-linear with lesser reduction in the initial years. The details of registration charges in each of these 5 years are enclosed at Annexure III. The Registration Charges based on entry fee paid by new basic service operators (entered in/after 2001) shall also reduce in the same proportion.

11.7 Comments on TRAI's draft recommendations on Unified Licensing Regime: Various stakeholders have raised the following issues:-

- i) The entry fee is very high and it will be a barrier for entry of new operators in telecom sector and hence will adversely affect the competition. This will also be a hindrance for the migration of existing non-integrated operators, especially, those who do not have PAN INDIA presence.
- ii) The integrated operators have raised the issue that in fact Rs.107 crores should be increased to Rs.125 crores for maintaining the level playing field between the existing NLD, ILD/ integrated operators and Unified Licensees.
- iii) Some operators demanded that the entry fee could be reduced on pro-rata basis, e.g. if an operator is having Unified Access Service License only in two circles then the entry fee should be reduced on the basis of number of subscribers in these two

circles on a particular date. Stand alone Unified Access service licensee have raised the issue that at present they have their presence in only 2 or 3 circles and they may not like to increase their service area to other circles but still they may like to migrate to Unified Licensing Regime. The problem faced by them is that the registration charge of Rs.107 crores, which is for a unified license in the whole country, will be the main barrier for their migration to unified licensing regime. They have requested that if this registration charge can be reduced on pro-rata basis then they also would be in a position to migrate to unified licensing regime. After migrating to Unified Licensing Regime, the access service providers shall be able to carry the long distance traffic originating and terminating in its subscribers only. The national long distance service can be offered by them extending inter-circle connectivity through out the country by either using their own network or a lease line network or making arrangement with other service providers.

- iv) Some stakeholders have opined that entry fee should be service specific and it should be left to the choice of service provider the type of services the service provider wants to offer and accordingly the service provider should be asked to pay the entry fee.
- v) Some stakeholders have opined that to maintain the level playing field between the existing operators and the new Unified Licensee already lot of concession in the form of reduced Annual License Fee, relaxed rollout obligations and reduced bank guarantee are being given to existing NLD/ILD operators in the proposed Licensing Regime, and therefore, it is not necessary to charge the same entry fee (on discounted basis as paid by the existing operators). Further, if at all, still the issue of level playing field between existing and the new Unified

Licensees remained then instead of keeping the high entry fee, it would be better the existing operators are suitably compensated taking into account the benefits being given to existing operators under Unified Licensing Regime.

The Authority at the time of finalising draft recommendations had considered all these options. As mentioned earlier the basic objective of unified Licensing is to ensure the easy entry of the operator into the Indian Telecom Sector, and therefore, the intention is never to create any barrier in the form of high entry fee but at the same time the level playing field issue among various operators is a very important regulatory aspect which cannot be ignored. In case, the entry fee is Service specific then it kills the true spirit of Unified License because in a way the existing regime is also service specific and the same will continue to remain even under Unified Licensing Regime which is proposed to be not specific to a type of service in general. Secondly, if the entry fee is based on the service area of existing operators then also it may disturb the business case of existing NLD/ILD operators because the number of subscribers and traffic distribution is not uniform throughout the country, e.g., if an operator is having a large customer base in Delhi and Mumbai or in Mumbai and rest of Maharashtra then by permitting them inter circle connectivity after payment of a lower entry fee could adversely affect the business case of existing NLD operators because such connectivity could take away a much larger share of overall inter circle traffic.

Regarding concessions to existing NLD/ILD operators in terms of lower annual license fee, relaxed rollout obligations and lower bank guarantee it is mentioned that these terms and conditions will be applicable to both existing and new operators under Unified Licensing Regime and therefore, if the entry fee to the new entrants under Unified Licensing Regime is lowered beyond the proposed limit then it affects the level playing field. Keeping all these aspects in mind, Authority does not consider it necessary to make any changes in the entry fee proposed in its draft recommendations.

11.8 It may be noted that there is a drastic reduction in registration charges to Rs.30 lakhs in about 5 years time. Quantification of this figure is difficult. Even in other countries, it may be difficult to establish the basis for fixing up the value of Registration Charges. For example, Australia has A\$10,000/- as entry fee, Malaysia has different value for Individual and Class licenses under different categories, etc. Further, the existing NLD operators would have used their license for almost 10 years at the time when we are recommending a drastic reduction in Registration charges and at that stage they will not be in a 'worse off' situation. Actually an operator entry into Telecom market almost after 15 years of opening of the sector may not be a big threat purely on lower registration charge basis.

11.9 This principle of gradual reduction in registration charges was followed in Australia. When Optus entered in Australian Telecom Market in 1991, they paid a high entry fee but they were told at that time itself that market will be opened for further competition in 5 years time and at that time entry fee could be much lower than being paid by Optus. The point to be noted here is that Optus was told at the time of entry itself regarding future action plan of opening the Telecom Sector for further competition in Australia at easier terms and conditions. But in Indian situation fixing a very low Registration Charges at this stage without any prior intimation at the time of entry may put existing operators in disadvantageous position and this may defeat one of the key objectives of Unified Licensing.

11.10 It should also be noted that spectrum charges, including initial spectrum charge for entry, wherever applicable, would be extra which are being dealt with separately.

12.0 Level playing field issues for existing NLDOs

12.1 Under the existing Unified Access Licensing Regime, the inter-service area traffic is to be carried by NLD operator only. If unified licensee is permitted to carry inter-service area long distance traffic then it adversely affects the business case of NLD operators. In fact, the existing private NLD operators have already raised these issues with TRAI. The important terms and conditions of registration charges, annual license fee and rollout obligations discussed earlier addresses the issues pertaining to level playing field and 'no worse off' objectives. Discussions in subsequent paragraphs would further clarify these issues.

12.2 By fixing Registration fee of unified licensee equal to discounted fee of long distance operator plus a component based on entry fee paid by new Basic Service Operators (entered in/after 2001), the level playing field between existing NLD operators and the unified licensee is maintained. Regarding the effect on the business case of existing NLD operators, it is mentioned that right from the time of opening of long distance services for private sector participation, open competition with unlimited number of players is permitted and, therefore, no existing NLD operator could object to the entry of new NLD operators through the proposed Unified Licensing Regime.

12.3 Regarding the already rolled out network by existing NLD operators, it is pertinent to note that as on June 2004, all NLD operators except M/s Reliance have completed only Phase I (Cumulative percentage of 15% of National Coverage at the LDCA level where POP has been established) of their Roll-Out obligations. M/s Reliance has completed Phase II (Cumulative percentage of 40% of National Coverage at the LDCA level where POP has been established) of their Roll-Out obligations. Any demand of the compensation from the NLD operators is not justified because they still have to rollout around 60% of their network and any relaxation in rollout obligations at this stage is substantially advantageous to them also. Secondly, transmission system installed by them is not exclusively for NLD services, and most of the existing NLD operators are

integrated operators and their transmission system is shared for different services being offered by them under different licenses. In this connection, it should be noted that DoT has already amended the definition of NLD POP and now POP means a technical arrangement made by the National Long Distance Service Operator (NLDO) under which it can accept outgoing calls from and deliver terminating calls to the area required to be served from such Point of Presence. The amended POP definition also mentions that it is expected that the switch capacity and bandwidth of the interconnection link would be dimensioned by NLDO based upon its projections of the traffic to be carried at the POP.

12.4 As discussed in para 10 the license fee for long distance service (both NLD and ILD) is reduced from the existing level to 6% (contribution to USF(5%) + Administrative cost (1%)). With these explanations all the level playing issues between existing long distance operators and other service providers stand addressed.

12.5 The Authority has also noted that there is adequate competition in all service areas, which is expected to ensure completion of calls in all services areas. All service areas including North East, Assam and J&K have at least 3 licensed access (both fixed and mobile) service providers. List of service area-wise access service providers is enclosed at Annexure IV.

13.0 Reselling of Telecom Services:-

13.1 This was one of the issues under consultation paper. The stakeholders have expressed divided opinion on this issue. At this point of time, since lot of developments in terms of M&A, implementation of Unified Licensing and new Spectrum Policy, etc. will take place, therefore, Authority recommends that reselling should not be permitted at this stage. However, franchise and sharing of infrastructure among service providers should continue to be implemented. Reselling ban is proposed to be reviewed at an appropriate time in the future.

14.0 Others

14.1 Migration: Optional or Compulsory: It is recommended that migration of the existing service providers to the ULR may be optional. However, after a period of 5 years it shall be mandatory for all telecom operators to migrate to Unified Licensing Regime. It is recommended that after a period of 5 years after implementation of ULR instead of existing service specific licensing there shall be four categories of licenses only: i) Unified License with entry fee of Rs. 30 lakhs ii) Class license, iii) licensing through Authorization & iv) Stand alone broadcasting and cable license. As mentioned earlier, with technological developments and flexibility in the licensing regime the Government may consider reviewing USO policy and at an appropriate time may consider to reduce the level of USO contribution from its present level of 5%. The policy in this regard may be reviewed periodically every year depending upon the market conditions. Similarly the administrative fee may also reduce with time. It is also clarified that migration to unified licensing regime does not mean that it is mandatory to migrate to unified license category under the new regime. If any service specific licensee does not want to offer the services under unified license category then the service provider need not migrate to this category of unified licensing regime. Migration could be to any one or more than one or all categories of unified licensing regime as explained in Para 3.3 and 3.8 of these recommendations.

14.1.1 Some operators who are stand alone Unified Access Service Licensees have represented that they have no intention to offer NLD/ILD and other telecom services covered in Unified Licensing Regime but they may like to extend their access services into other circles only as UASL. Since the Unified Licensing Regime will not permit the entry of new licensees other than Unified Licensee this may create an entry barrier for such operators to extend their service areas, e.g., if an operator is a UASL say in Punjab and wants to offer access services in Haryana as per draft recommendations under Unified Licensing Regime, the service provider will have to take a Unified License after paying Rs.107 crores

plus even if the service provider has no intention to offer NLD/ILD services. Authority considered and decided that the permission to take service specific license even under Unified Licensing Regime will mean to have multiple type of licenses and this may again create a confusion in the market. However, till Unified Licensing Regime comes into effect the operator is free to take UASL in any circle and this situation should continue till two year of implementation of Unified Licensing Regime. This period of two years would also be available for all other existing services. After this period of two years no new service specific license including Unified Access License, as in the existing licensing regime, shall be issued and all new Service Providers shall be licensed under new Unified Licensing Regime.

This would give an extra two years time for licensees to take new service specific licenses in new service areas and should address the issue raised by some stand alone UASLs.

14.2 Validity period of Unified License and the dependence of entry fee on the validity period.

Some of the stakeholders have opined that registration charge should be dependent on the remaining license period of the existing service providers, e.g., if the remaining license period of the existing service provider is say 2 years the registration charge should be reduced on pro rata basis and should be calculated for two years.

In case the balance validity period of different existing licenses for different services is considered either for deciding the validity period of Unified License or for determining the Registration Charges as opined by some service providers

then Authority considers that it will become a very complex regime from the point of view of the validity period of different licenses under new licensing regime. Not only this the determination of registration charges based on this formula would require to go into details of date of issue of different licenses for different services and their original validity period and therefore, it may result into various combinations of registration charges for same or different services license agreement. As decided in Unified Access Service License Agreement, the Unified License will remain valid for 20 years from the effective date unless revoked earlier for any reason, whatsoever. The effective date of Unified License shall be date of signing of Unified License Agreement. With this provision, the validity and registration charges for Unified License shall be completely independent of the original validity period of migrating service specific licensee. One could argue that by this arrangement, the existing licenses have been renewed without charging any extra registration charges/entry fee but as explained earlier the intention of the Authority is not to charge any extra entry fee but the whole objective is the growth of telecom services which in turn will contribute a greater revenue to the exchequer and it will be a win-win situation to the operators and Government of India. This aspect has been proved even at the time of migration to revenue sharing arrangement in August, 1999. In any case, those licensees who do not migrate to Unified Licensing Regime, they will compulsorily have to migrate after 5 years.

14.3 Migration to Unified License by a company holding more than one existing license.

There is a possibility that a single company/legal person, either directly or through his associates, shall have substantial equity holding in more than one licensee company. Substantial equity herein will mean an equity of 10% or more. In such situations, all the companies shall require a single Unified License and if any such company is already an NLD and ILD operator then they are not required to pay Rs.107 crores component of the registration charges but they will

be required to pay the circle specific access charge depending upon the number of additional circles in which the service provider intends to offer access services. In case, the existing operator is either NLD or ILD operator then in addition to the access service component the service provider will have to pay the difference of Rs.107 crores and the discounted registration charges/entry fee for NLD or ILD services.

14.4 Interconnection

It shall be mandatory for the Unified licensee to provide interconnection to all eligible Telecom Service Providers (eligibility shall be determined as per the service provider's license agreement and TRAI's determination/orders/regulations issued from time to time) as well as Unified Licensees to ensure that the calls are completed to all destinations and when carrier preselection is introduced the subscribers could have a free choice to make inter-circle/international long distance calls through other operators. Principles of non-discrimination shall be followed in the matter of interconnection.

14.5 Numbering:

Numbering related issues shall be dealt with separately if and when required.

Annexure-I

	Operator	Date of signing License Agreement	Entry Fee Paid (in Cr)	License Period(Yrs)	License Duration till Dec.04 (Years)	Fee till Dec.04 (Cr.)	Balance Fee (Cr.)	Average Balance Fee (Cr.)
	NLD							
1	Bharti	29.11.2001	100	20	3.08	15.4	84.6	85
2	Reliance	28.01.2002	100	20	2.92	14.6	85.4	
3	VSNL	08.02.2002						
4	BSNL	Incumbent						
	ILD							
1	Bharti	14.03.2002	25	20	2.75	3.44	21.6	22
2	Reliance	25.02.2002	25	20	2.83	3.54	21.5	
3	DataAccess	27.03.2002	25	20	2.75	3.44	21.6	
4	VSNL	Incumbent						
5	BSNL	29.01.2003	25	20	1.92	2.4	22.6	

Total Entry Fee for Long Distance Component = (85+22) = 107 Crores

Annexure-II

- i. Fixed (Wireline including WLL(F)) Subscriber Base* of Pvt BSO licensed in/after 2001 as on 31.03.2004 = A=1245139
- ii. Total(fixed + Mobile) subscriber base* of Pvt operator licensed in/after 2001 as on 31.03.2004=B= 7598738
- iii. Ratio A/B= 16%

Service area wise registration charges

Service Area	Fixed Fee of BSO in 2001(in Cr.)	(16%) x Fixed Fee(in Cr.)
Delhi	50	8
Mumbai	36.4	5.82
Chennai	20.15	3.22
Kolkata	22.31	3.57
MH	78.6	12.58
GUJ	40	6.4
AP	35	5.6
KTK	35	5.6
TN	29.85	4.78
Kerala	20	3.2
Punjab	20	3.2
Haryana	10	1.6
UP-W	15	2.4
UP-E	15	2.4
Raj	20	3.2
MP	20	3.2
WB&A&N	2.69	0.43
HP	2	0.32
Bihar	10	1.6
Orissa	5	0.8
Assam	5	0.8
NE	2	0.32
J&K	2	0.32

*Source: Data received from service providers

Annexure-III

Reduction in Registration Charges.					
1st year (Cr.)	2nd year(Cr.)	3rd year(Cr.)	4th Year(Cr.)	5th Year (Cr.)	6th Year (Cr.)
Jan-05	Jan-06	Jan-07	Jan-08	Jan-09	Jan-10
107 <u>plus</u> Registration Charge based on entry fee paid by new Basic Service Operators (entered in/after 2001).	102.00 <u>plus</u> Registration Charge based on adjusted* entry fee paid by new Basic Service Operators (entered in/after 2001).	92.00 <u>plus</u> Registration Charge based on adjusted* entry fee paid by new Basic Service Operators (entered in/after 2001).	72.00 <u>plus</u> Registration Charge based on adjusted* entry fee paid by new Basic Service Operators (entered in/after 2001).	32.00 <u>plus</u> Registration Charge based on adjusted* entry fee paid by new Basic Service Operators (entered in/after 2001).	0.30

* The Registration Charges based on entry fee paid by new basic service operators (entered in/after 2001) shall also reduce in the same proportion.

		Circle	Access service provider
Metros	1	Delhi	Bharti
			Hutch
			MTNL
			Idea
			Reliance Infocomm
			Tata Teleservices
	2	Mumbai	BPL
			Hutch
			MTNL
			Bharti
			Reliance Infocomm
			Tata Teleservices
	3	Chennai	Aircel Cellular
			Bharti
			BSNL
			Hutchison
			Reliance Infocomm
			Tata Teleservices
	4	Kolkata	Bharti
			Hutchison East
			BSNL
			Reliable Internet Services Ltd
			Tata Teleservices
			Reliance Infocomm
A Circle	5	MH	BPL
			Idea
			BSNL
			Bharti
			Reliance Infocomm
			Tata Teleservices
	6	GUJ	Fascel
			Idea
			BSNL
			Bharti
			Reliance Infocomm
			Tata Teleservices
	7	AP	Idea
			Bharti
			BSNL

			Hutchison
			Reliance Infocomm
			Tata Teleservices
	8	KTK	Bharti
			Spice
			BSNL
			Hutch
			Reliance Infocomm
			Tata Teleservices
	9	TN	BPL
			Aircel
			BSNL
			Bharti
			Reliance Infocomm
			Tata Teleservices
B Circle	10	Kerala	Escotel
			BPL
			BSNL
			Bharti
			Tata Teleservices
			Reliance Infocomm
	11	Punjab	Spice
			Bharti
			BSNL
			Hutchison
			Tata Teleservices
			Reliance Infocomm
			HFCL Infocom
	12	Haryana	Escotel
			Aircel Diglink
			BSNL
			Bharti
			Tata Teleservices
			Reliance Infocomm
	13	UP-W	Escotel
			BSNL
			Bharti
			Tata Teleservices
			Reliance Infocomm
			Hutchison South
	14	UP-E	Aircel Diglink

			BSNL
			Escorts Telecommunications
			Bharti
			Tata Teleservices
			Reliance Infocomm
	15	Raj	Aircel Diglink
			Bharti (Earlier Hexacom)
			BSNL
			Escorts Telecommunications
			Reliance Infocomm
			Tata Teleservices
			Shyam Telelink
	16	MP	Idea
			Reliance Telecom
			BSNL
			Tata Teleservices
			Reliance Infocomm
			Bharti Infotel
			Bharti Cellular
	17	WB&A&N	Reliance Telecom
			BSNL
			Bharti Cellular
			Tata Teleservices
			Hutchison South
			Dishnet DSL Ltd
			Reliance Infocomm
C Circle	18	HP	Bharti
			Reliance Telecom
			BSNL
			Escorts TeleCommunications
			Tata Teleservices
			Reliance Incomm
			Dishnet DSL Ltd
	19	Bihar	Reliance Telecom
			Reliance Infocomm
			BSNL
			Tata Teleservices
			Dishnet DSL Ltd
			Bharti Cellular Ltd
	20	Orissa	Reliance Telecom
			Reliance Infocomm
			BSNL

			Bharti
			Tata Teleservices
			Dishnet DSL Ltd
	21	Assam	Reliance Telecom
			BSNL
			Dishnet DSL Ltd
			Bharti (LOI Issued, LA yet to be signed)
	22	NE	Reliance Telecom
			BSNL
			Bharti (Earlier Hexacom)
			Dishnet DSL Ltd
	23	J&K	BSNL
			Bharti
			Dishnet DSL Ltd